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Evaluating the Effects of Postive Peer Reporting on Social Acceptance

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EVALUATING THE EFFECTS OF POSITIVE PEER REPORTING ON SOCIAL ACCEPTANCE

by

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EVALUATING THE EFFECTS OF POSITIVE PEER REPORTING ON SOCIAL ACCEPTANCE

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The effects of a positive peer reporting procedure on social status and social interactions were assessed. Children who are socially rejected seem to be disliked by their peers due to their high frequency of negative behaviors and low frequency of positive behaviors. Therefore, to decrease the negative behaviors and increase the positive behaviors, rejected children were asked to make positive comments about their peers. Participants included 4 children, ages 10–15 years. A multiple baseline across subjects design was utilized. Collection of baseline data began immediately following the confirmation of consent and eligibility for the child to participate. Initial baseline data included sociometric measures, Assessment of Interpersonal Relations–Peer Scale (AIR-PS), Child Behavior Checklist (CBCL), and behavior observations. The sociometric measures were administered at baseline, postintervention, and follow-up. The AIR-PS and the CBCL were administered at the baseline and postintervention phases. The behavioral observations occurred at baseline phase and throughout the study. From the positive peer reporting procedure, several outcomes were expected: (a) an increase in social status and social skills, (b) an increase in positive interactions and a decrease in negative interaction, and (c) a decrease in negative behavior and an increase in positive behavior. However, there were no changes in any of these measures across phases for all subjects.

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Mary Short

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

Approximately 10–15% of children have peer relation problems that lead to social unacceptance (Asher & Rose, 1997). Social unacceptance, in turn, may lead to several problems later in life (McFadyen-Ketchum & Dodge, 1998). For example, unaccepted children are more likely than accepted children to become pregnant in adolescence (Underwood, Kupersmidt, & Coie, 1996), drop out of high school, engage in delinquent behavior, develop psychopathology, and become unemployed (Coie, Terry, Lennox, & Lochman, 1995; Gresham, MacMillan, & Bocian, 1997; Parker & Asher, 1987). Given the problems associated with social difficulties, it is important that socially disliked children be identified, as early identification and amelioration of behaviors contributing to an unaccepted status may reduce the risk of later problems (Elliott & Gresham, 1993).

The first step in identifying such behaviors is to define social unacceptance. Children who are socially unaccepted are those who are disliked by their peers, and this social dislike can be classified in two main ways (Coie, Dodge, & Coppotelli, 1982). The first type of unaccepted child is classified as socially neglected. This type of child does not interact with other peers, and consequently, he/she is ignored passively and neglected by others. (Krehbiel & Milich, 1986). The second type of unaccepted child is classified as socially rejected. This type of child exhibits behaviors that other children find aversive and other children distance themselves from the rejected child (Krehbiel & Milich, 1986).

There are a number of behaviors that can cause children to experience the two aforementioned social difficulties (i.e., rejection or neglect). Neglected children seem to experience difficulties because they lack the skills necessary to interact positively with peers; in other words, they display a social skills deficit. Perhaps such children are neglected because they fail to impact the peer environment either positively or negatively. Thus, peers are unlikely to approach such an individual (Krehbiel & Milich, 1986). Children who have a deficit in those social skills, may be unable to initiate or receive peer conversation or engage in play behavior effectively (Dodge, 1983; Elliott & Gresham, 1993). For example, if a peer asked a neglected child to play, that child may run away or ignore his/her peer.

A number of studies have investigated the negative social behaviors commonly associated with social neglect and found that children who become socially neglected were likely to hover, engage in low rates of interactions, or display extremely withdrawn behavior (Coie et al., 1982; Coie & Kupersmidt, 1983; Dodge, 1983; Gottman, 1977; Newcombe, Bukowski, & Pattee, 1993). Overall, neglected children had a low frequency of negative behavior; yet, they rarely initiated interactions, kept to themselves, were not interactive, and were not seen as aversive (Elliott & Gresham, 1993).

In contrast, rejected children may emit appropriate social skills, but engage in other behaviors which make the social interaction aversive (Elliott & Busse, 1991; Krehbiel & Milich, 1986). In other words, socially rejected children seem to possess the skills necessary to interact, but they exhibit high rates of inappropriate and negative behaviors that subsequently lead to negative outcomes and minimize positive outcomes (Asher & Rose, 1997; Dishion, Andrews, & Crosby, 1995; Dodge, 1983; Foster, Inderbitzen, & Nagle, 1993).

A number of studies have investigated the negative social behaviors commonly associated with peer rejection and found that children who become socially rejected were likely to display aggressive, disruptive, or extremely aversive behaviors (Coie et al., 1982; Coie & Kupersmidt, 1983; Dodge, 1983; Newcombe et al., 1993). Overall, rejected children tend to elicit negative peer reactions for two main reasons: (1) high proportions of aggressiveness in interactions, and (2) low proportions of prosocial and cooperative play (Dodge, 1983).

In addition to the number of aforementioned variables potentially contributing to social unaccceptance, another factor, tattling, also appears to be associated with social rejection. Currently, the author and colleagues are conducting a correlational study between tattling and social rejection. Preliminary results indicate a significant negative correlation between social acceptance and perceived tattling (Gilman et al., 1999). These results should be viewed tentatively as they have not been replicated and do not provide causative evidence (i.e., does tattling lead to social rejection or is tattling a correlate of social rejection). Nevertheless, these results suggest that it is important to evaluate the presence of tattling in children who are socially rejected.

Given the differences between rejected and neglected children in quality and quantity of their interactions, it is important to assess which children have deficits and which have excesses in order to better plan for effective treatments. There are four main methods of assessing children's social status and relevant behaviors: teacher reports, self-reports, behavior observation, and sociometric measures (Elliott & Busse, 1991).

Sociometric measures are the most common and most useful in labeling children who are socially rejected. Sociometric measures do not directly assess behavior problems per se. Rather, the procedure allows for the collection of peer

information about the perceptions of social status, the primary definition of social rejection (Coie, Dodge, & Kupersmidt, 1990).

Traditionally, sociometric measures are conducted in two ways, through peer nomination procedures or roster rating scales. Using nomination measures, peers are asked to nominate a specified number of classmates on specific questions, such as likability and dislikability (Green & Forehand, 1980). For example, children in a classroom are asked to nominate three children whom they like most and three children whom they like least. Using roster-rating scales, peers are asked to rate their classmates on certain criteria using a Likert-type scale. For example, the children may be asked to respond to "How much do you like to play with each child" or "How much do you dislike each child" by rating each other on a 5-point Lickert scale from "1" being not at all to "5" being very much (Roistacher, 1974).

Teacher and self-report measures supplement/complement sociometric ratings by identifying the problem behaviors and skill deficits that may be contributing to the peer relationship problems, such as poor social skills or aggressive behaviors (Foster et al., 1993). However, these instruments typically rely on subjective estimates or recollections of social interactions patterns rather than providing direct, real time observations of social interactions. Overall, these measures can be used to assess children's general competency and behavior related to social interactions (Foster et al., 1993). For example, these measures contain questions related to how confident the child feels when interacting with others, perceptions of being liked or disliked, and frequency of isolation or involvement with peers.

As with teacher and self-report, behavior observations are not used to categorize children as "socially rejected." Instead behavior observation assess specific problem behaviors associated with peer rejection. Behavior observation entails

directly observing individuals across varying contexts and behaviors. The contexts in which observations occur vary according to settings, such as a playground, a cafeteria, and a classroom during free play or free time (Foster et al., 1993). When observing social interactions, the two main target behaviors include negative and positive behaviors (e.g., cooperativeness, hitting, and sharing) and negative and positive interactions (e.g., interrupting, hovering, making no eye contact, and asking someone to play) (Foster et al., 1993; Green & Forehand, 1980).

Given the different ways and purposes of the assessment measures, it appears that working with children with social problems is a multi-step process. First, using the sociometric assessments, children are identified as rejected or neglected. Second, using behavior observation and teacher and self-report, the behavioral correlates of social status are determined. Finally, focus is placed on interventions that target the problem behaviors identified with the teacher and self reports, as well as behavior observation. Given the differences in behavior problems associated with being rejected or neglected, it is important that treatment selection and implementation reflect those differences. Children with social skills deficits (neglected children) will most likely require interventions designed to foster the acquisition and use of social skills, whereas children with behavior excesses (rejected children) will most likely require interventions that reduce these behavior excesses and train or motivate more appropriate replacement behaviors (Coie & Cillessen, 1993; Dodge, Murphy, & Buchsbaum, 1984).

When the social problem involves a deficit in social skills, then the treatment of choice is an intervention that directly helps the person acquire new social skills and encourages or motivates appropriate use of these skills. These interventions often include all or some of the following components: (a) coaching, (b) modeling,

(c) behavioral rehearsal, and (d) reinforcement. Whereas coaching involves instructing and teaching children socially appropriate behaviors, such as participation, cooperation, communication, and validation, modeling involves conveying information on social skills performance through the use of live or filmed behavioral performances. Rehearsal involves the repeated practice of social skills either overtly, covertly, or verbally. The last component, reinforcement, involves providing feedback and reinforcers contingent on performance. This is typically accomplished by informing the child if the skill was successfully completed, providing the child with specific information regarding correct or incorrect performance of the social skill, and presenting the child with tangible or verbal rewards (Gresham & Nagle, 1980; Oden & Asher, 1977).

When social skills interventions are used with children who show low rates of target skills, skills training often leads to increases in positive behavior and social acceptance (Berlere, Gross, & Drabman, 1982; Bulkeley & Cramer, 1994; Cooke & Apolloni, 1976; Gresham & Nagle, 1980; Matson, Fee, Coe, & Smith, 1991; Oden & Asher, 1977). For example, implementation of a social skills training package led to an increase in social skills, prosocial behavior and social acceptance with 26 children with learning disabilities (Bulkeley & Cramer, 1994) and with 28 preschoolers (Matson et al., 1991). In another example, Gresham and Nagle (1980) compared the effects of three treatment methods, coaching, modeling, and a combination of the two, with 40 socially isolated children in the third and fourth grade. Results suggested that all three interventions were effective in increasing peers' ratings of rejected children, but there was no added benefits of the combined intervention.

Although the aforementioned interventions are quite successful in alleviating social skills deficits, children with behavioral excess may not be assisted by these

procedures (Elliott & Busse, 1991). With the child who exhibits behavioral excesses, interventions should target the problematic behaviors (negative social interactions) that limit occurrences of appropriate skills. Overall, much of the prior research focuses on training new social skills or arranging for contrived reforcers to be delivered by program personnel to improved specific social behaviors. Perhaps, some of this prior work is altering specific social behaviors (remediates deficits) but may not produce much of a change in the social interactions of the child. Most of the skills training programs produce changes in these specific behaviors trained; however, overall social interactions rarely change.

Thus, interventions that alter the contingencies for detecting and reporting the positive behaviors of one's peers may be more beneficial in changing social behaviors and interactions between peers and target child and improving the amount of reinforcement that characterizes social interactions. This increase in peer reporting may increase the density of peer delivered reinforcers and alter the contingencies for tracking and reacting to the positive peer behavior. Positive peer reporting procedures may change the environmental context of social interactions so that there is more peer attention on positive behavior and peer delivered reinforcement for positive social behavior.

Positive peer reporting involves having peers publicly report the prosocial behaviors exhibited by other youth. In the original procedure, the targeted child's peers were awarded points (redeemable for privileges) for making public positive statements about the target child at the end of a class period (Grieger, Kauffman, & Grieger, 1976). Data were then collected during free time on the number of positive and negative interactions between the target child and his/her peers. This procedure produced an increase in cooperative classroom play and a decrease in aggressive acts

(Grieger, Kauffman, & Grieger, 1976). Since the original study was conducted, a line of research has continued using PPR to improve the social status and behaviors of unaccepted children. Ervin, Miller, and Friman (1996) used an ABAB design to examine the effects of positive peer statements on the social interaction and acceptance of a peer-rejected girl in the school setting. The results indicated positive effects on social interactions and peer acceptance.

These results were replicated with three socially rejected adolescents (Jones, Young, & Friman, 1998) and with a socially rejected girl in an elementary classroom in a public grade school (Ervin, Johnston, & Friman,1998). The most recent study in this series evaluated PPR with a socially rejected 15-year-old boy in a group home setting (Bowers, McGinnis, Ervin, & Friman, in press). Last, Bowers (1997) applied the positive peer reporting procedures with four socially rejected youths in their homes. Overall, with implementation of PPR, the results with this line of research indicate that social status and positive interactions increase and negative interactions decrease.

Even though the positive peer reporting procedures have been shown to be effective, there were several limitations to the aforementioned studies. First, although the procedure demonstrated beneficial effects on social behaviors, the procedure did not train the target child more appropriate ways to initiate and maintain social interactions. That is, socially rejected children may have changed their social behaviors largely as a result of social initiations from the peers rather than any social behavior change on the part of the socially unaccepted child. This may limit generalization of the effects to other settings where peers were less likely to search for and react favorably to positive behaviors. Unfortunately limited data on generalizability across settings are reported in prior studies. Second the previous studies targeted children who were considered socially unaccepted, but did not differentiate between those

youths who were rejected versus neglected. The procedure may be appropriate for unaccepted children who lack adequate social skills because it relies on the social skills of peers, but its effectiveness for those with behavior excesses may be limited. Third, the behavior observations that were obtained did not differentiate between who initiated the interaction. Such a differentiation would be beneficial in concluding which group, target or peer, actually changed their interaction styles. Finally, these studies did not use many standardized measures of behavior problems and social skills. Perhaps more standardized measures would be useful in assessing social skills and behavior problems in target children compared to other children. These measurements would allow further assessment of whether rejected children differ from other children or whether any improvement in behaviors or social skills resulted from the implementation of the positive peer reporting procedure.

Purpose of the Present Study

The purpose of the present study was to address the above stated limitations of the original positive peer reporting procedure by including a procedural variation and enhancing the data collection procedure. The procedural variation included a modification of the target youth's role. In previous studies, peers positively peer reported on the targeted child. In the present study, the target child reported on the positive behavior of his/her peers. The enhancement of the data collection procedures was twofold. First, in the previous studies, observational data only included negative, positive, and no opportunity interactions. The present study was more specific in terms of positive and negative interactions by coding who initiates the interaction. Such a differentiation would have been beneficial in concluding which group, target or peer, actually changed their interaction styles. Second, the present study included two types

of standardized measurements, CBCL and Assessment of Interpersonal Relationships–Peer Scale, with the former targeting behavior excesses and the latter targeting social skills deficits.

Given the variation on the present positive peer reporting procedure, it was important to understand why the present procedure may have been effective in changing social interactions. First, the intervention indirectly targeted children's negative behavior, tattling. If rejected children positively peer report, it was believed that the behavior contributing to rejection (tattling) could be reduced. Consequently, if the rejected child was not reporting on negative peer behavior (tattling), but instead delivering positive peer reports, then peers may not have actively rejected the target peer. If the intervention was reinforcing an alternative behavior (positive peer reporting), then a decrease in tattling may have resulted, and the target peer may have exhibited a relatively new behavioral repertoire, positive peer reporting. If this happened, then peers may have changed their view or behavior towards the rejected peer (Folkes, 1982).

Second, the change in interaction patterns between peers and the rejected youth may have occurred due to a phenomenon labeled social reciprocity. Social reciprocity refers to the tendency of individuals to reciprocate the type of social behavior that was displayed towards them. Put simply, individuals tend to behave toward others as others have acted toward them. For example, if a person acts aggressively, the receiver may be more likely to reciprocate that aggression. If a person gives a compliment, the receiver may be more likely to reciprocate that compliment (Charlesworth & Hartup, 1967; Hartup & Coates, 1968).

Overall, social reciprocity theory suggests that children who increase their positive peer reports (e.g., one type of positive social interaction), may benefit from

increased reciprocal positive interactions from their peers. Operating from the standpoint of social reciprocity, it seemed reasonable to assume that if there was an increase in the reinforcers (i.e., compliments and associated rewards) delivered by the rejected peer, then the beneficiaries of those compliments may respond in kind with socially reinforcing interactions. The target child's positive peer report may have led to more reciprocal positive interactions by peers. In general, peers may have responded more positively towards the targeted children because they were receiving more reinforcement from those rejected youths. If there was an increase in the response of peers toward the rejected youths, then perhaps the procedure may have worked by increasing the likelihood that the positive aspects of the target child's behavior, which had previously been unnoticed, were now detected.

CHAPTER II

METHODS

Participants

Participants included four children, ages 10–15 years. All participants were residents of the Boys Town home campus. At Boys Town, four to eight same-sex youths reside in a home staffed by a resident married couple (family teachers) and an additional adult staff member (assistant family teacher). All Boys Town youth participate in a token economy system based on a version of the Family Teaching Model (Phillips, Phillips, Fixsen, & Wolf, 1971) in which points are earned for positive behavior and lost for negative behavior. The points earned on a given day allow the youth to purchase privileges (e.g., free time, sweet snack, and television time) on subsequent days.

Participants included in the present study (a) were referred for peer problems by teachers, family teachers, or community administrators; (b) were residents of Boys Town; (c) were rejected by classmates (as measured by the sociometric procedures described below); (d) had written consent from their family teachers and community administrators (see Appendix B for Caretaker Consent Form); and (e) had a score of 3 or more on the tattling question of the Sociometric Questionnaire. To be classified as rejected, a child needed less than three positive nominations on the Nomination Form, a mean rating of 3 or below on the two positive (1 and 2) sociometric questions. The Sociometric Questionnaire and Nomination Form are described in detail in the

Instrument Section. Upon admission to Boys Town, each child's legal guardians provided consent to treatment and research. Assent was obtained from the 4 primary participants, as well as consent from family teachers and clinical specialists. Student assents were obtained from the target youths prior to the beginning of the study (see Appendix C for the Participant Consent Form). Further, youths in the primary participants homeroom completed the Sociometric Questionnaire and Nomination Form. Therefore, participant assent was also obtained from the youths completing these forms (see Appendix D for the Participant Assent Form).

Subject 1: Jen

Jen was a 14-year-old Caucasian female. Jen was placed at Boys Town by her mother because of her many behavior problems including peer relationship difficulties, frequent attention seeking, and frequent verbal and physical aggression. Jen also had an extensive psychiatric history with multiple hospitalizations. At the time of the study, she had been at Boys Town for 14 months.

Jen met all requirements for the study. She was referred by her clinical specialist and family teachers, who reported that Jen had difficulties with peer relationships and that she was frequently teased by other children. Results of Jen's baseline social status assessment showed that Jen received no positive nominations, four negative nominations, a mean rating of 2.2 on the positive questions (1 and 2), and a mean rating of 3.0 on the tattling question.

Subject 2: Jess

Jess was a 10-year-old Native American female who was placed at Boys Town by her legal guardian (Nebraska Department of Health and Human Services)

because of the following behavior problems: physical and verbal aggression, suicidal ideation and threats, school difficulties, poor boundaries, and peer relationship difficulties. At the time of the study, Jess had been at Boys Town for 20 months.

Jess met all requirements for the study. Her clinical specialist, teacher, and family teachers referred her for difficulties with peer relations. She often teased and ridiculed others, and she often lied and negatively reported the behaviors of others (tattled). Results of Jess's social status assessment showed that Jess received no positive nominations, six negative nominations, a mean rating of 2.5 on the positive questions (1 and 2), and a mean rating of 3.7 on the tattling question.

Subject 3: Sara

Sara was a 15-year-old Caucasian female. Sara was placed at Boys Town by her mother because of her many behavior problems, including peer relationship difficulties, frequent attention seeking behaviors, stealing, and lying. At the time of the study, she had been at Boys Town for 11 months.

Sara met all requirements for the study. She was referred by her clinical specialist and family teachers, who reported that Sara had difficulties with peer relations and that she was teased frequently by other children. Results of Sara's social status assessment showed that Sara received no positive nominations, four negative nominations, a mean rating of 2.2 on the positive questions (1 and 2), and a mean rating of 3.3 on the tattling question.

Subject 4: Sue

Sue was a 13-year-old Caucasian female. Sue was placed at Boys Town by her legal guardian because of her many behavior problems including physical and

verbal aggression, school difficulties, lying, and peer relationship difficulties. At the time of the study, Sue had been at Boys Town for 8 months.

Sue met all requirements for the study. She was referred by her clinical specialist, teacher, and family teachers for difficulties with peer relations. She was mean to others, teased and ridiculed others, and she often lied and negatively reported the behaviors of others (tattled). Results of Sue's social status assessment indicated that Sue received no positive nominations, four negative nominations, a mean rating of 2.6 on the positive questions (1 and 2), and a mean rating of 4.0 on the tattling question.

Setting

Intervention Setting

The intervention took place in the middle school on Boys Town Campus. All teachers and employees of the middle school were trained in the Family Teaching Model (Phillips et al., 1971). The intervention occurred in the target child's home classroom. The typical homeroom consisted of approximately 8 to 11 children. The children in each of the homerooms were fairly consistent throughout the day and year, except for Jess's homeroom. Jess was placed in a smaller homeroom during summer school, only one of the children stayed constant from baseline and intervention to follow-up. The intervention occurred during fourth period, which was the period directly before lunch and recess hour.

Observation Setting

Observations took place in the lunchroom of the middle school on Boys Town campus, while the target subject was sitting at the lunch table. However, for two of the subjects at follow-up, observations took place during homeroom in the middle school of Boys Town. All children in the target subject's homeroom were at the same lunch table or in the same homeroom. Therefore, all target children were observed interacting with the peers to whom they delivered compliments.

Reactivity was a concern because direct observations were utilized. However, it was believed that reactivity was kept to a minimum for several reasons. First, the Boys Town setting is unique in that observations are a normal part of children's lives. Not only do clinical researchers observe children, but children are also observed by administrators, family teachers, clinical specialists, and behavior interventionists. Therefore, the children should have been less reactive to observations. Furthermore, the target subject had no direct contact with the observer prior to observations. Therefore, these children may have been less reactive to the principal investigator because they did not know the observer was there to observe them.

Generalization Setting

Generalization probes were conducted in two different settings. For those participants who had recess, recess occurred directly after fourth period. During recess the children are allowed to play with any peer from any classroom. That is, they did not have to play or interact with their homeroom classmates. Recess occurred in two places (playground and gym) depending on the weather. For those participants who did not have recess, home observations occurred during a time

when youths in the house interacted. The youths in the home consisted of eight same-sex youths that were not in the targeted child's homeroom classroom. Observation occurred in the home following the school day. During the home observations, children were allowed to play and interact with any peer from their home for a 30 min time span. Most of the time was spent talking and sharing information about their day and school.

Data Collection

Behavior Observations

Behavior observations occurred during lunch period and homeroom, which was directly following the time (fourth period) when the target subject was reporting positive behaviors to the homeroom teacher. Behavior observations consisted of 15 min periods in which a 15-s partial interval recording procedure was used. The recording sheet consisted of four categories of behavior: positive interactions, negative interactions, neutral interactions, and no opportunity (see Appendix E for behavior observation sheet). With the exception of the no opportunity or neutral category, each category also contained two subcategories (peer initiated or target initiated). A positive interaction included an appropriate and relationship-building comment or gesture made by a peer or the targeted subject (e.g., sharing, initiation question, pleasant conversation, or invitation to join a group or activity). A negative interaction included an inappropriate or relationship damaging comment or gesture made by a peer or the targeted subject (e.g., pushing or hitting, name calling, disrupting ongoing activity, or joining without initiating). A neutral interaction included intervals where there was an absence of a negative and positive interaction

even though the opportunity existed. The no opportunity category involved situations in which circumstances did not allow the youth to interact with peers. For example, the teacher was talking with the target subject over in the corner, or the child went to the bathroom.

Using the definitions, the investigator observed for 15 s, and after that time had elapsed, he/she recorded if each type of interaction had occurred. If an interaction took place, either a *P* (peer) or *T* (target) was placed under the appropriate interval (T1, T2, T3, T4, etc.). If the target child initiated the interaction, a *T* was placed in the appropriate interval. If the peer initiated the interaction, a *P* was placed in the appropriate interval. Each type of behavior was recorded only once per interval, and only one type of behavior was recorded during an interval. Therefore, the first behavior to occur was recorded. Furthermore, if an interaction took place, a *T* or *P* was placed under the appropriate interval (T1, T2, T3, etc.) and in the appropriate box representing the type of interaction. For example, if the target child initiated play behavior with another child 47 s into the observation, a *T* was placed in the Positive-Interaction box under T4. As another example, if at 5 min into an observation, the target child hit another child when asked to play, a *T* was placed in the Negative-Interaction box under T20. If no opportunity to observe the child occurred for the first min, a check mark was placed in the No Opportunity box under T1, T2, T3, and T4. All other intervals in which no interactions occurred was coded as neutral.

Generalization Probes

Generalization probes occurred throughout the study during school recess and at home. The same observation and recording procedures described above were

used for generalization probes. Further, in both of these settings, there were no special activities, instruction, or contingencies given or implemented. Behavior observations for treatment generalization occurred at least twice during each phase for 15 min.

Interobserver Reliability

The principal investigator conducted the majority of the observations. However, in order to reduce observer drift, four psychology interns at Boys Town collected observational and interobserver reliability data. Prior to observing, these interns received instructions from the primary researcher on the operational definitions being used in this study. Observers practiced observations using video taped interactions and in vitro observations of children interacting until agreement reached a minimum of 80%, which was calculated using the methods described below. After raters demonstrated a minimum of 80% interobserver agreement, they were allowed to collect data.

During all phases of the study, interobserver agreement was measured during a minimum of 30% of the observation sessions. Given the complexity of the behavior observation coding sheet, interobserver reliability was calculated for five types of interactions (overall agreement, target initiated, peer initiated, positive interactions, and negative interactions). First, overall agreement across all interactions was calculated. Specifically, overall reliability was assessed by examining the agreement and disagreement on every interval. For example, if both observers marked the same category (negative interaction, positive interaction, neutral interactions, and no opportunity), even if the initiator (*T* or *P*) was different, then the interval was considered an agreement. Second, the reliability on target and peer initiations was

calculated. Specifically, this reliability was assessed by examining the agreement and disagreement on every interval where a peer or target initiated an interaction. For target and peer initiations, if both observers marked the same category and the same initiator, then it was considered an agreement. However, if the observers marked any part differently, then the interval was considered a disagreement. For example, if observer 1 marked a *T* and observer 2 marked a *P* for interval T20, then the interval was scored as an disagreement for both the target initiated and peer initiated areas, but an agreement for overall interactions. If both observers had a *T* for negative interactions under interval 1, then that was an agreement. Third, the reliability on positive and negative interactions was calculated. Specifically, this reliability was assessed by examining the agreement and disagreement on every interval in which a positve or negative interactions occurred. For negative and positive interactions, agreement occurred if both observers marked the interaction as negative or both marked the interaction as positive. However, if one observer marked the interaction as positive and the other observer marked the interaction as negative, then the interval was considered a disagreement. For example, If both observers had a *T* for negative interactions under interval 1, then that was an agreement. However, if one observer had a *P* under positive interaction and the other observer had a marked a *P* under negative interaction, then that was a disagreement.

The agreements of the observers was divided by the number of agreements plus disagreements and multiplied by 100% to calculate a percentage of agreement for each observation. Agreements were defined as intervals in which both observers recorded the occurrence of the same behavior or where the observers both agreed that there was no opportunity to observe. Disagreements were defined as instances in

which one observer recorded an interaction, and the other observer did not record an interaction or recorded a different type of interaction.

Frequency of Peer Reports

The frequency of peer reports was calculated for each subject by doing an event recording of the number of peer reports given each day by that subject. Data were collected by examining the point card for the number of peer reports given each day. A single peer report was noted on the point card as "positive peer report." Further, an average of peer reports across phases was calculated by adding up the number of peer reports given during a phase and dividing by the number of days in that phase.

Sociometric Questionnaire

A 3-item questionnaire, created by the author, was administered to the target child and every child in the targeted child's homeroom classroom at baseline, postintervention, and follow-up (see Appendix F). The questionnaire was taken by the a few of commonly asked sociometric questions, and adding one question pertaining to tattling (Foster et al., 1993; Roistacher, 1974). Mean peer ratings were calculated for each item for each child. The mean rating for each child did not include his/her own rating of him or herself. Children were asked to rate each other on the various questions. A minimal amount of information was given regarding the reason for the questionnaire. However, the children were told that we were interested in finding out how children get along with each other and about their friendships. The children were also told to base the rating on how they viewed each child in the last

week. The children were also told that peers would not be able to see the information, and their answers would not be shared with peers.

Peer Nomination

All of the children in the target's classroom were asked to complete the Peer Nomination (Appendix G) form at baseline, postintervention, and follow-up. On this form children were asked to provide the number of children they consider to be a friend. They also were asked to name up to three children in their current homeroom class they like the most and three children in the class they like the least. A minimal amount of information was provided regarding the reason for the nomination form. However, the children were told that we were interested in finding out how children get along with each other and about their friendships. The children were told that no one would be able to see the information, and their answers would not be shared with anyone.

The nominations were classified as positive (liked by others) and negative (disliked by others), and children received a frequency count for the number of nominations in each type of category. In general, the more positive and fewer negative nominations the child received, the more accepted the child was by his/her peers.

Assessment of Interpersonal Relations–Peer Scale (AIR-PS)

The AIR-PS (Bracken, 1993) was completed by each participant prior to treatment. AIR-PS is a 35-item scale investigating the self-perceived quality of peer relations in such areas as time spent with peers, acceptance by peers, likability by peers, and relationships with peers. Each of the items was scored on a 4-point scale

(strongly agree, agree, disagree, and strongly disagree). The higher the score, the more self-perceived problems with interpersonal peer relationships. The AIR has demonstrated excellent internal consistency (alpha score = .95), excellent test-retest reliability (r = .94 to.96), and a good overall stability coefficient of r =.98 (Bracken, 1993). In addition, the authors report that the AIR has good content, construct, and criterion-related validity (Bracken, 1993).

Of the three sections on the AIR (Parent, Teacher, and Peer Scales), the Peer Scale was the only section administered. The remaining sections (Parent and Teacher) were not used because they were irrelevant to the questions being addressed in this study. In the two excluded sections, child-adult interactions were addressed, and not peer relations.

Child Behavior Checklist (CBCL), Teacher's Report Form (TRF), and Youth Self Report (YSR)

The family teachers completed the CBCL (Achenbach, 1991). The instrument contains 112 behavior-specific items rated on a 3-point scale ("0" = not true, "1" = somewhat or sometimes true, and "2" = very true). The individuals completing the form were asked to rate each item according to the targeted child's behavior over the last 6 months. From these ratings, responses were classified into the following 10 syndrome scales: (1) Withdrawn, (2) Somatic Complaint, (3) Anxious/Depressed, (4) Social Problems, (5) Thought Problems, (6) Attention Problems, (7) Delinquent Behavior, (8) Aggressive Behavior, (9) Internalizing, and (10) Externalizing. For each syndrome scale, a child received a T score that corresponds to the levels of severity of behavior. For all syndrome scales, a T score of 66 or below was considered to be within normal limits. A T score of 67 to 70 was considered to be

within the borderline range. Finally, any *T* score above 70 was considered to fall within the clinically significant range.

The CBCL yields moderate to excellent internal consistency (CBCL alphas = .54 to .96), and moderate to excellent test-retest reliability over a range of different time intervals (mean *r*'s range from .66 to .91). The form has shown evidence of good content, criterion, and discriminant validity (Achenbach, 1991).

Treatment Evaluation Inventory-Short Form (TEI-SF)

The teacher completed this 9-item measure at the postintervention phase. The TEI-SF (Kelley, Heffer, Gresham, & Elliott, 1989) was used to measure the acceptability of a particular treatment. Each item on the TEI-SF (Appendix H) was rated on a scale from 1 to 5 (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree) with higher scores indicating greater treatment acceptance. The ratings given to each question were summed, and a total treatment acceptability score was provided. The TEI-SF has shown good internal consistency, good test-retest reliability, and has proved to be a valid measure of treatment acceptability (Kelley et al., 1989).

Point Cards

All residents at Boys Town have their own point card that is used throughout the day. When a youth displays an appropriate and/or inappropriate behavior, family teachers and teachers ask the youth to record the behaviors and points on his/her cards. Negative and positive points are determined by the family teachers and teachers. When a behavior is recorded on a point card, four sections (cirriculum skill, specific behavior, negative and positive points, and skill type) are recorded by the

youth while the teacher or family teacher monitors the youth for accuracy of recording. The curriculum skill areas includes behaviors such as following directions, respecting authority, accepting criticism, greeting skills, departure skills, accepting consequences, asking for help, and positive peer reporting. Each curriculum skill includes specific behaviors. After the youth codes the curriculum skill, they also code specific behaviors related to the curriculum skill. Next, the youth records the points lost (negative points) or earned (positive points) for the behavior as determined by the family teachers or school teachers. The final code recorded by the youth is the skill type. The types of skills include social skills, independent skills, or academic skills. For example, if a peer shared his toys with another peer, the peer would record "peer relations" for the curriculum skill, sharing toys for the specific behavior, he/she would receive a positive point amount, and it would be coded as a "social skill."

The point cards were utilized as a measure of appropriate and inappropriate behavior. Those behaviors that corresponded to positive points were considered appropriate behavior, and those behaviors that corresponded to negative points were considered inappropriate behavior. Percentage of appropriate and inappropriate behavior was calculated by taking the number of appropriate behaviors or inappropriate behaviors divided by total number of behaviors and multiplying by 100%.

Treatment Integrity

Treatment integrity was assessed by a research assistant at least once during baseline and at least twice during intervention phase, including the first intervention session. The principal investigator observed the schoolteacher during each treatment integrity check and as the investigator observed each item being. The checklists

included specific items that needed to be covered and implemented by the teacher correctly, the corresponding item on the checklist was marked (Appendix I). If all items were not checked at meeting times, the teacher was retrained, and he/she had another meeting to re-implement the intervention with the target youth. If all items were not checked at any other time, the teacher will be retrained and treatment integrity was reassessed at the next session.

Procedure

Design

A multiple baseline across subjects design was utilized. Sociometric data and Peer Nomination data were collected during baseline. Collection of baseline data began immediately after obtaining consent and confirming the eligibility of the child.

Baseline

Initial baseline data included the AIR-PS questionnaire, CBCL, Nomination Form, Sociometric Questionnaire and behavior observations. The behavioral observations occurred at lunch in the Boys Town Middle School. The behavior observations occurred throughout the baseline phase until there were three data points in a row with no increasing trend in positive interactions or no decreasing trend in negative interaction. Observation data were collected throughout the study.

Baseline consisted of the standard operating procedures at Boys Town. Under these conditions, the teacher awarded points for "positive peer reporting," mentioning to the teacher a positive action or characteristic about another resident at Boys Town. These positive peer reports were not prompted or otherwise required by

the teacher, as she/he did during the Intervention Phase. In baseline the teacher did not relay the report and the identity of the author of that report to the person whose positive behavior was noted; further, the complimented peer did not receive points for the positive behavior.

Intervention

The intervention began immediately after a clear and stable baseline was established for each targeted subject. The intervention was applied in a sequence across subjects being exposed to the same environmental conditions. As the intervention was applied to succeeding subjects, the baseline for each subject increased in length. The intervention occurred until there were three data points in a row with no decreasing trend in positive interactions or no increasing trend in negative interactions.

The intervention began with a meeting between the teacher and each target child. The teacher told the youth that he/she would receive positive points for notifying the teacher of any positive behaviors his or her homeroom classmates emit. These positive behaviors could occur at any time throughout the day. However, the positive peer report needed to occur during fourth period, and the report needed to be delivered to the homeroom teacher. The teacher also gave examples of appropriate remarks (e.g., Jane did a great job of sharing her book today). The targeted child was told that he/she could only earn points if the remarks were specific, direct, and genuine as determined by the teacher. Further, the child was also told that he/she would receive a point amount for each report given, but only one positive peer report per child could be given. Once the targeted child delivered a positive comment, the teacher recorded the comment as a positive peer report on the

target child's point card. Specifying the behavior as a positive peer report on the child's card allowed the researcher to monitor the frequency of positive comments delivered by the target subjects.

After the points were recorded, the teacher privately approached the complimented peer, described the positive feedback that was given about this child, and informed him/her that the compliment came from the targeted subject. The complimented peer also received positive points for the complimented behavior. This feedback was private allowing for the only the complimented peer to hear the information. This feedback session occurred during fourth period which was immediately before recess and lunch. It also was a time when children are together, when there was time for the intervention to occur, and when there was the greatest opportunity to interact.

Overall, baseline and intervention were similar because the children were allowed to positively peer report on classmates, and they received points for the positive report. However, baseline and intervention were different. During baseline, children were not prompted or encouraged to positively peer report on their peers; the complimented peer was not told of the compliment; the complimented peer did not receive points for the complimented behavior; and the positive peer reporting happened at any time during the day. Whereas, in intervention, children were prompted and encouraged to positively peer report on their peers; the complimented peer was told of the compliment and the author of the compliment; the complimented youth received points for the positive behavior; and the positive peer report happened only during the fourth period.

Postintervention

At the end of the intervention stage, the children in the target child's classroom completed the Sociometric Rating Scales and the Peer Nomination Form. In addition, the target child completed the AIR-PS questionnaire. During this time, the family teachers completed the CBCL, and teachers completed the TEI-SF.

Follow-Up

Follow-up occurred 1 month after completion of the Intervention Phase. The follow-up included two sessions of direct observation of the target child at lunch and recess/home. Furthermore, the children in the classroom again completed the Peer Nomination Form and Sociometric Rating Scales.

CHAPTER III

RESULTS

The focus of the study was to increase the frequency of positive peer reports and to determine if there would be a corresponding change in the nature of peer interactions and sociometric measures of popularity. The most important data were obtained through the behavior observations. These data assessed the change in interaction behaviors. However, there were other measures used to obtain supplementary data. Overall, few changes or improvements were found in any of the children. For all participants, the percentage of intervals where positive interactions occurred did not increase from baseline to postintervention or from baseline to follow-up. Further, there were no changes in negative interactions for all subjects from baseline to postintervention and from baseline to follow-up. Further, social status, as measured by the Sociometric Rating Scale and Peer Nomination Form, showed no changes across phases for all subjects. Overall, social skills, positive behaviors, and negative behaviors stayed the same.

Subject 1: Jen

Behavior Observations

During baseline, intervention, and follow-up, Jen had a low percentage of intervals where positive interactions occurred and a high percentage of intervals where neutral interactions occurred, whereas intervals where negative interactions

occurred were low throughout the study. Overall, there was no change in trend for all types of interactions across all phases of the study. See Figure 1 for overall pattern of interactions across phases.

Generalization Probes

The generalization probes showed no change from baseline to intervention or from baseline to follow-up in positive, negative and neutral interactions. At baseline, postintervention, and follow-up, positive interactions were low, neutral interactions were high, and negative interactions were low. See Figure 1 for generalization data.

Frequency of Peer Reports

Jen's baseline mean frequency of peer reports was zero. Jen did not peer report at any time during baseline. With implementation of intervention, Jen began peer reporting at approximately 2 times per day. However, there were 2 days when Jen did not peer report at all. During follow-up session, Jen peer reported approximately 1.0 times per day. Table 1 displays the mean frequency of peer reports across phases.

Sociometric Ratings

During all phases of the study, Jen's mean sociometric ratings were low on the positive questions and high on the tattling question. Further, she was rated more negatively and was rated as tattling more often than other children in her classroom across all phases of the study. Table 2 displays Jen's and her class's sociometric mean ratings across different phases of the study.

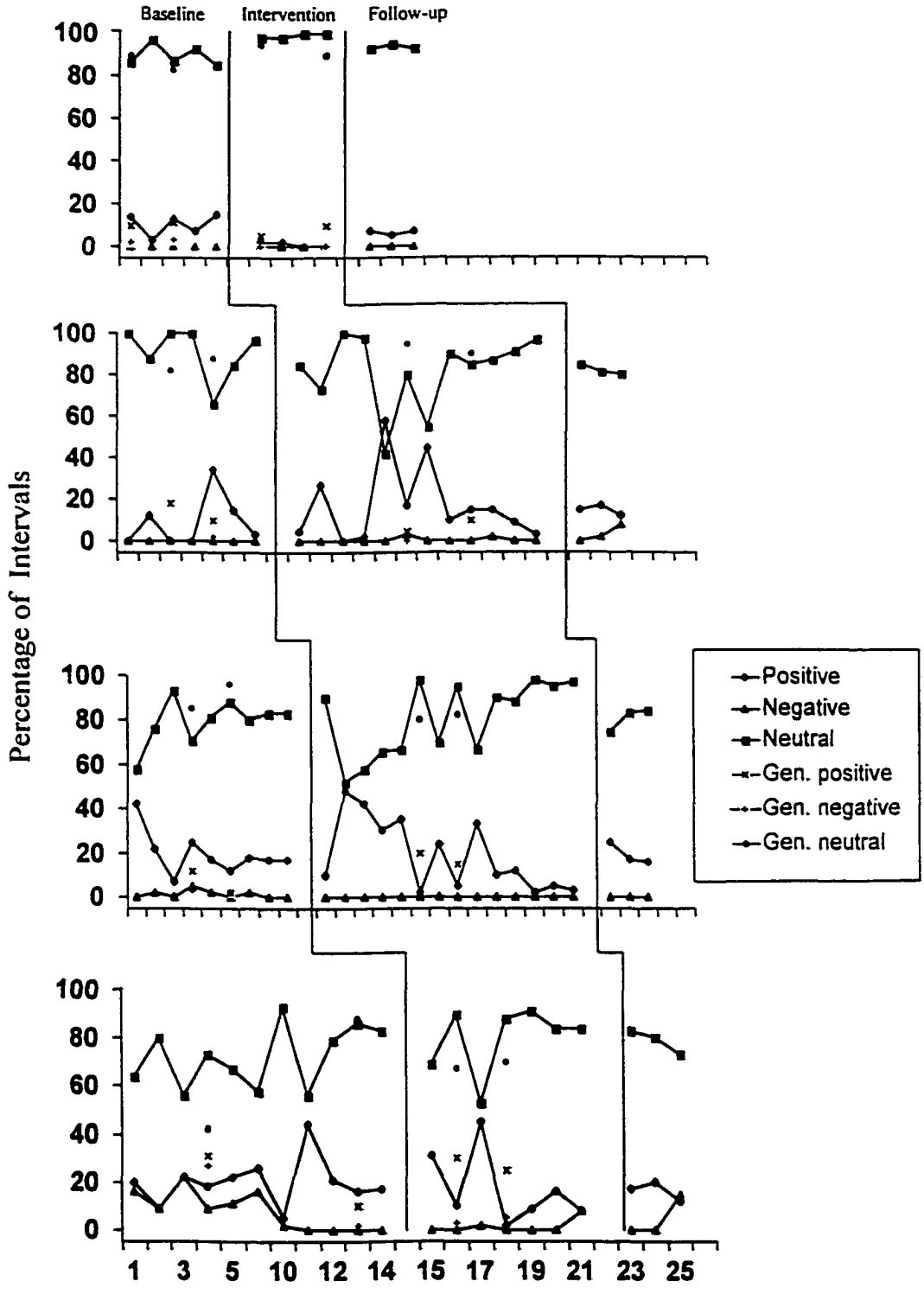


Figure 1. Overall Interaction Patterns and Generalization Probes Across Phase by Subject.

Table 1

Range and Mean of Frequencies of Peer Reports Across Phase by Subject

	Baseline	Intervention	Follow-up
Jen	0 ($M = 0$)	1–3 ($M = 2$)	1–2 ($M = 1$)
Jess	0 ($M = 0$)	0–3 ($M = 1$)	0 ($M = 0$)
Sara	0 ($M = 0$)	0–3 ($M = 2.3$)	0–4 ($M = 1$)
Sue	0 ($M = 0$)	0–2 ($M = 1$)	0–1 ($M = .33$)

Table 2

Comparison of Subject and Class Mean Scores on Sociometric Ratings Across Phase

	Baseline		Postintervention		Follow-up	
	Class	Subject	Class	Subject	Class	Subject
Jen	($N = 11$)		($N = 11$)		($N = 12$)	
Positive Question #1	3.7	1.9	3.3	2.0	3.5	1.6
Positive Question #2	3.7	2.6	3.2	2.2	3.5	2.1
Tattling Question	2.5	3.0	2.6	3.6	1.9	3.6
Jess	($N = 8$)		($N = 8$)		($N = 4$)	
Positive Question #1	3.3	2.4	3.5	3.0	2.6	2.6
Positive Question #2	3.4	2.6	3.7	3.1	2.6	2.6
Tattling Question	2.3	3.7	1.7	2.6	2.2	4.0
Sara	($N = 10$)		($N = 11$)		($N = 11$)	
Positive Question #1	3.3	1.9	3.3	1.9	3.4	1.7
Positive Question #2	3.3	2.5	3.1	2.0	3.5	2.0
Tattling Question	1.8	3.3	1.5	3.4	1.6	3.7
Sue	($N = 8$)		($N = 8$)		($N = 11$)	
Positive Question #1	4.0	2.5	3.9	2.5	3.0	2.2
Positive Question #2	4.3	2.7	4.2	2.7	3.2	2.2
Tattling Question	2.2	4.0	1.6	3.3	1.7	4.1

Note. The ratings on the first two questions are based on a 5-point Likert scale with 5 being the most positive and 1 being the least positive. The ratings on the last question are based on a 5-point Likert scale with 5 being the highest frequency of tattling and 1 being the lowest frequency of tattling.

At baseline, postintervention, and follow-up, Jen's individual mean ratings on each question was compared to the mean ranking of the entire classroom using a *Z* test to determine Jen differed significantly from other children in the classroom. At each phase of the study, Jen was at least 1 standard deviation away from the mean, with a range of 1.69 to 4.18, except on the tattling question at baseline ($Z = .70$). Therefore, it appears that Jen was significantly different on all sociometric questions, except the tattling question at baseline, than other children in her classroom. See Table 3 for *Z* scores for each question.

Table 3

Z Scores for Sociometric Questions for Each Subject Across Phases

	Q1	Q2	Q3	+ Nom.	– Nom.
Jen					
Baseline	–4.18	–2.44	.70	–1.67	2.08
Postintervention	–2.95	–2.50	1.69	–2.08	1.42
Follow-up	–3.27	–2.22	2.70	–1.51	1.80
Jess					
Baseline	–1.16	–1.21	2.09	–1.68	2.26
Postintervention	–1.00	–1.27	2.37	–1.32	1.74
Follow-up	0.00	0.00	1.37	0.00	0.00
Sara					
Baseline	–2.46	–1.40	1.84	–1.19	1.35
Postintervention	–2.50	–2.20	5.00	–1.27	1.96
Follow-up	–3.15	–2.46	5.12	–0.87	2.87
Sue					
Baseline	–2.88	–3.14	2.04	–1.54	2.30
Postintervention	–2.92	–3.34	2.58	–1.73	2.50
Follow-up	–1.25	–1.58	3.58	–.47	1.95

Peer Nomination Form

During all phases of the study, Jen received few postitive nominations and several negative nominations. Further, when comparing Jen's number of nominations to the class, Jen received less positive nominations and more negative nominations than other children in her classroom across all phases of the study. See Table 4 for Jen's and her class's nomination data ratings across different phases of the study. At baseline, postintervention, and follow-up.

Table 4

Number of Nominations for Each Subject and Class Across Phase

	Baseline		Postintervention		Follow-up	
	Class	Subject	Class	Subject	Class	Subject
Jen	($N = 11$)		($N = 11$)		($N = 12$)	
Positive Nominations	2.7	0	2.5	0	2.6	0
Negative Nominations	1.5	4	1.7	5	1.3	4
Jess	($N = 8$)		($N = 8$)		($N = 4$)	
Positive Nominations	2.9	0	2.5	0	1	1
Negative Nominations	2.4	6	2.0	4	1	1
Sara	($N = 10$)		($N = 11$)		($N = 11$)	
Positive Nominations	3.1	0	2.7	1	3.0	1
Negative Nominations	1.4	4	1.8	5	1.7	6
Sue	($N = 8$)		($N = 8$)		($N = 11$)	
Positive Nominations	2.1	0	3.0	0	3.1	2
Negative Nominations	1.0	4	.83	5	2.3	7

Jen's individual frequency of liked and disliked nominations were compared to the mean number of nominations of the entire classroom using a Z test to determine if Jen differed significantly from other children in the classroom. At each

phase of the study, Jen was at least 1 standard deviation away from the mean for each type of nomination, with a range of 1.42 to 2.08. Therefore, it appears that Jen was significantly different on the number of nominations she received compared to other children in her classroom. See Table 3 for *Z* scores for frequency of nominations.

AIR-PS

At baseline, Jen received an AIR-PS *t* score of a 36 and 41 for ratings of male and female peers, respectively. At postintervention, Jen's *t* scores remained at similar levels on both male peers scale (38) and females peers scale (39). See Table 5 for changes in scores from baseline to postintervention.

Table 5

T Scores of AIR-PS Across Phase by Subject

		Baseline	Postintervention
Jen			
	Male Peers	36	38
	Female Peers	41	39
Jess			
	Male Peers	49	49
	Female Peers	38	35
Sara			
	Male Peers	50	55
	Female Peers	55	55
Sue			
	Male Peers	57	55
	Female Peers	49	46

Note. Each item is scored on a 4-point scale (strongly agree, agree, disagree, and strongly disagree). Scores are added together to form a raw scores which is then converted into *t* scores.

CBCL

All *t* scores remained relatively the same from baseline to postintervention. Figure 2 displays these *t* scores. Overall, two of the subscales, social problems and thought problems, were in the borderline range at both baseline and postintervention. This suggested that Jen struggled with social functioning and thought problems at baseline and continued to struggle in these areas after intervention.

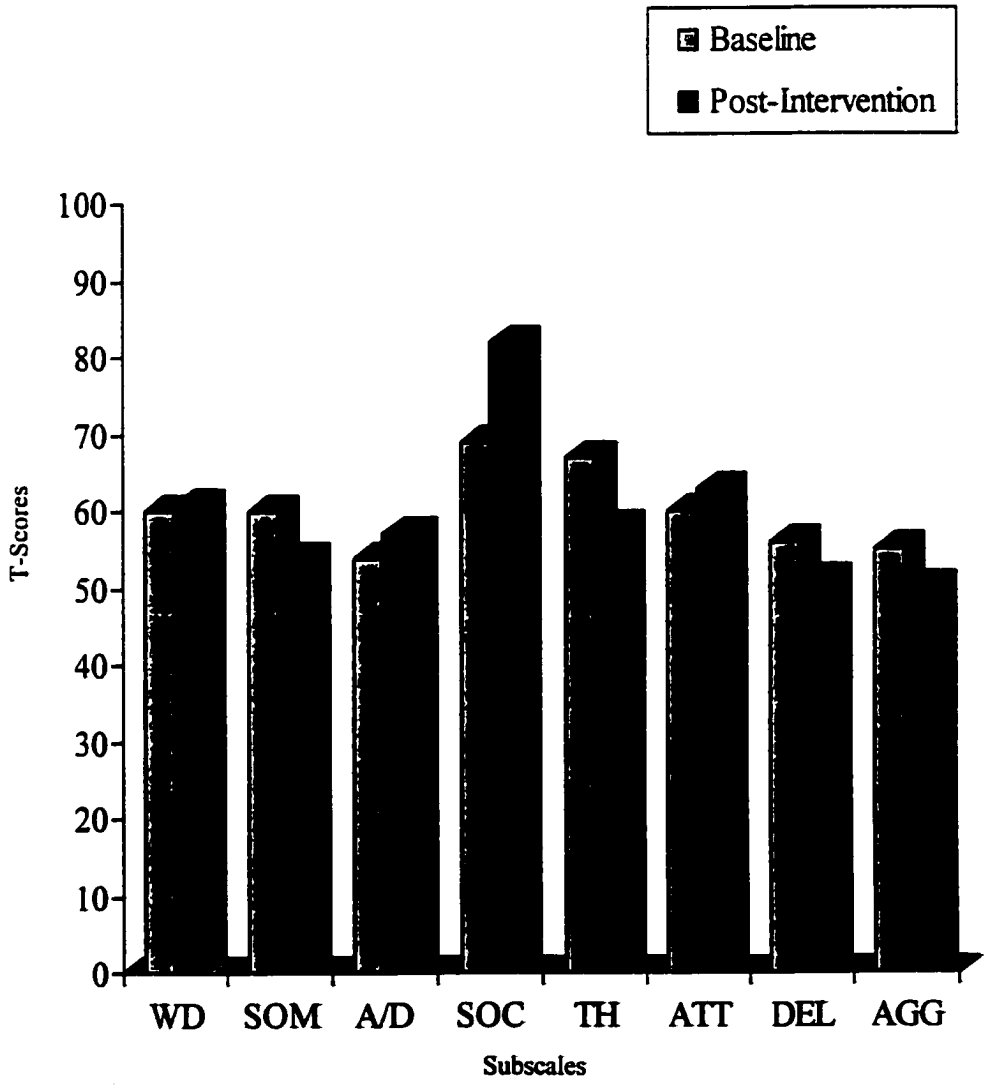


Figure 2. The *t* Scores on Each Subscale at Baseline and Postintervention for Jen.

Point Cards

During baseline, Jen had a high percentage of appropriate behaviors and a low percentage of inappropriate behaviors. Across the other phases of the study, both appropriate and inappropriate behaviors stayed at similar levels. Figure 3 displays the percentage of appropriate and inappropriate behavior across phases.

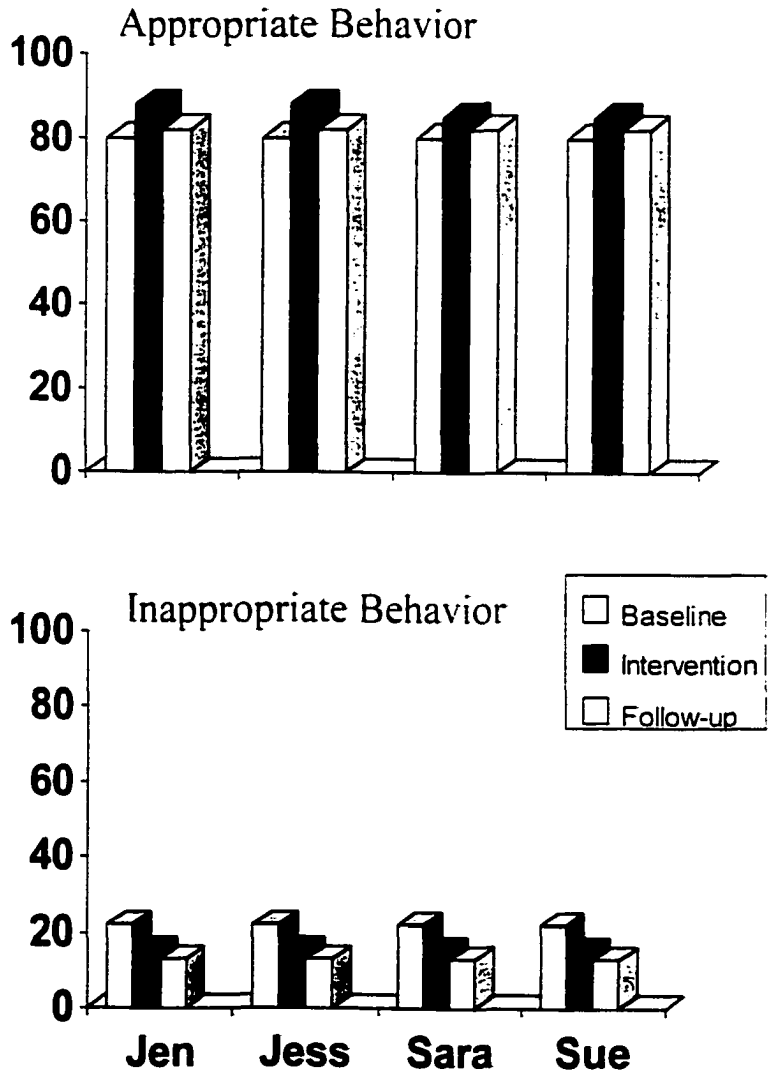


Figure 3. Percentage of Appropriate and Inappropriate Behaviors Across Phases by Subject.

Subject 2: Jess

Behavior Observations

During baseline, postintervention, and follow-up, Jess had a low percentage of intervals where positive interactions occurred and a high percentage of intervals where neutral occurred. Intervals where negative interactions occurred stayed relatively low throughout the study. Overall, there was no change in trend for all types of interactions across all phases of the study. See Figure 1 above for overall pattern of interactions across phases. However, there were two peaks in positive interaction patterns. It was during this time that a new student joined the class; however, it is inconlcusive as to whether or not this produced the aberrant increase in positive interactions.

Generalization Probes

The generalization probes showed no change across phases in positive, negative and neutral interactions. At baseline, postintervention, and follow-up, positive interactions were low, neutral interactions were high, and negative interactions were low. See Figure 1 above for generalization data.

Frequency of Peer Reports

Jess's baseline mean frequency of peer reports was zero. Jess's did not peer report at any time during baseline. With implementation of intervention, Jess began peer reporting at approximately 1 time per day, with a mean of 1.0. However, there were 3 days where Jess did not peer report at all. During follow-up session, Jess did

not peer report on any occasion. Table 1 above displays the mean frequency of peer report across phases.

Sociometric Ratings

Across all phases of the study, Jess's mean sociometric rating was low on the positive questions and high on the tattling question. Further, she was rated more negatively and was rated as tattling more often than other children in her classroom across all phases of the study. Table 2 above displays Jess's sociometric mean ratings across different phases of the study.

At baseline, postintervention, and follow-up, Jess's individual mean sociometric ratings on each question was compared to the mean ranking of the entire classroom using a *Z* test to determine if Jess differed significantly from other children in the classroom. At each phase of the study, Jess was at least 1 standard deviation away from the mean on each question, with a range of 1.00 to 2.37, except for the two positive questions at follow-up. Therefore, it appears that Jess was significantly different on most sociometric questions than other children in her classroom. Further, it appears that Jess did not differ in ratings on the two positive questions at follow-up compared to other children in her classroom. See Table 3 above for *Z* scores for each question.

Peer Nomination Form

During all phases of the study, Jess received few positive nominations and several negative nominations. Further, when comparing Jess's number of nominations to the class, Jess received less positive nominations and more negative nominations

than other children in her classroom across all phases of the study. See Table 4 for Jess's nomination data ratings across different phases of the study.

At baseline, postintervention, and follow-up, Jess's individual frequency of liked and disliked nominations were compared to the mean number of nominations of the entire classroom using a *Z* test to determine if Jess differed significantly from other children in the classroom. At each phase of the study, Jess was at least 1 standard deviation away from the mean, with a range of 1.32 to 2.26 standard deviations away from the mean, except at follow-up. Therefore, it appears that Jess was significantly different on frequency of nominations than other children in her classroom. Further, it appears that at follow-up she did not differ on the frequency of positive or negative nominations she received as compared to the rest of the children in her classroom. See Table 3 above for *Z* scores for frequency of nominations.

AIR-PS

At baseline, Jess received a AIR-PS *t* score of 49 and 38 for ratings of male and female peers respectively. At postintervention, Jess's *t* scores remained at similar levels on both male peers scale (49) and females peers scale (35). See Table 5 for changes in scores from baseline to postintervention.

CBCL

At baseline, Jess received average *t* scores, and these *t* scores remained at relatively the same elevation from baseline to postintervention. Figure 4 displays these *t* scores. Overall, Jess did not have any clinical or borderline *t* scores on any of the subtests suggesting that Jess is functioning well in all the problem areas measured.

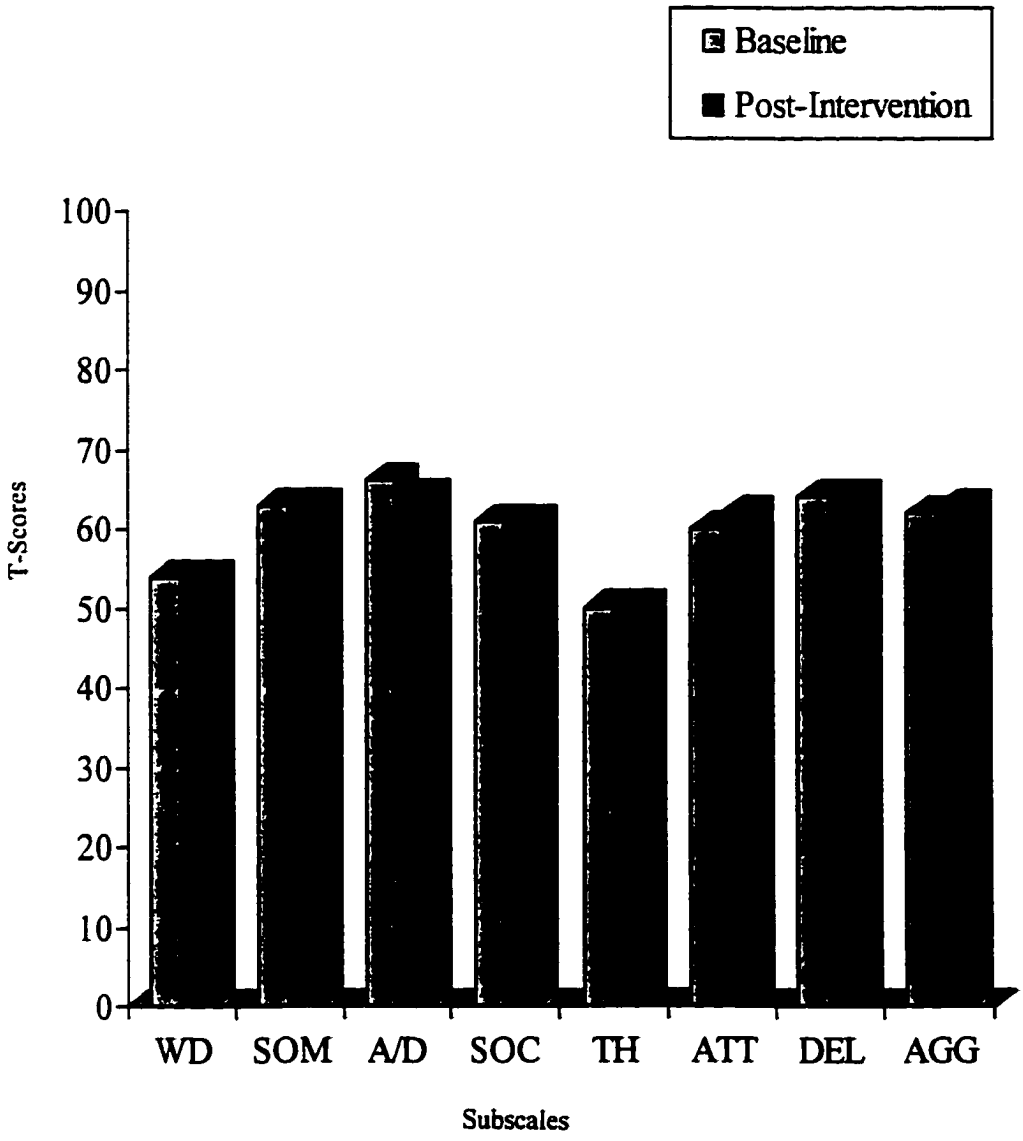


Figure 4. The *t* Scores on Each Subscale at Baseline and Postintervention for Jess.

Point Card

During baseline, Jess had a high percentage of appropriate behaviors and a low percentage of inappropriate behaviors. Across the other phases of the study, both appropriate behaviors and inappropriate behaviors stayed at similar levels. See Figure 3 above for percentage of appropriate and inappropriate behavior across phases.

Subject 3: Sara

Behavior Observations

During baseline, intervention, and follow-up, Sara had a low percentage of intervals where positive interactions occurred and a high percentage of intervals where neutral interactions occurred, whereas intervals where negative interactions occurred were relatively low throughout the study. Overall, there was no change in trend for all types of interactions across all phases of the study. See Figure 1 for overall pattern of interactions across the study. However, during the first day of baseline, Sara had a high rate of positive interactions, which was most likely due to the fact that her best friend was sitting at her lunch table. During the rest of the study, her friend did not sit at the lunch table.

Generalization Probes

The generalization probes showed no change across all phases of the study in positive, negative and neutral interactions. At baseline, postintervention, and follow-up, positive interactions were low; neutral interactions were high; and negative interactions were low. See Figure 1 for generalization data.

Frequency of Peer Reports

Sara's baseline mean frequency of peer reports was zero. Sara did not peer report at any time during baseline. With implementation of intervention, Sara began peer reporting at approximately 2 to 3 times per day, with a mean of 2.3. However, there were 2 days where Sara did not peer report at all. During follow-up session,

Sara peer reported approximately 1 time per day. Table 1 displays the mean frequency of peer reports across phases.

Sociometric Ratings

During all phases of the study, Sara's mean sociometric ratings were low on the positive questions and high on the tattling question. Further, she was rated more negatively and more often tattling than other children in her classroom across all phases of the study. Table 2 above displays Sara's sociometric mean ratings across different phases of the study.

At baseline, postintervention, and follow-up, Sara's individual mean ratings on each question was compared to the mean ranking of the entire classroom using a Z test to determine if the Sara significantly from other children in the classroom. At each phase of the study, Sara was at least 1 standard deviation away from the mean, with a range of 1.40 to 5.12. Therefore, it appears that Sara was significantly different on all sociometric questions than other children in her classroom. See Table 3 for Z scores for each question.

Peer Nomination Form

During all phases of the study, Sara's received few positive nominations and several negative nominations. Further, when comparing Sara's number of nominations to the class, Sara received less positive nominations and more negative nominations than other children in her classroom across all phases of the study. See Table 4 for Sara's nomination data ratings across different phases of the study.

At baseline, postintervention, and follow-up, Sara's individual frequency of liked and disliked nominations were compared to the mean number of nominations of

the entire classroom using a *Z* test to determine if Sara differed significantly from other children in the classroom. At each phase of the study, Sara was at least 1 standard deviation away from the mean, with a range of 1.19 to 2.87, except for positive nominations at follow-up. Therefore, it appears that Sara was significantly different on the frequency of nominations she received compared to other children in her classroom. Further, it appears that Sara did not differ in the number of positive nominations she received at follow-up compared to other children in her classroom. See Table 3 above for *Z* scores of nomination data.

AIR-PS

At baseline, Sara received an AIR-PS *t* score of a 50 and 55 on ratings of male and female peers, respectively. Sara's *t* score on both male peers scale (*t* score = 55) and females peers scale (*t* score = 55) remained at similar levels at postintervention. See Table 5 for changes in scores from baseline to postintervention.

CBCL

T scores on all subscales remained relatively the same from baseline to postintervention. Figure 5 displays these *t* scores. Overall, two of the subscales, somatic complaints and anxious/depressed, were in the borderline range at both baseline and postintervention. This suggested that Sara struggled with somatic complaints and anxiety/depression at the beginning of the study and continued to struggle in these areas after intervention. Further, three of the subscales, withdrawn, social problems, and delinquent behavior, were in the clinical range at both baseline and postintervention suggesting that Sara struggled with withdrawn, social and delinquent behaviors.

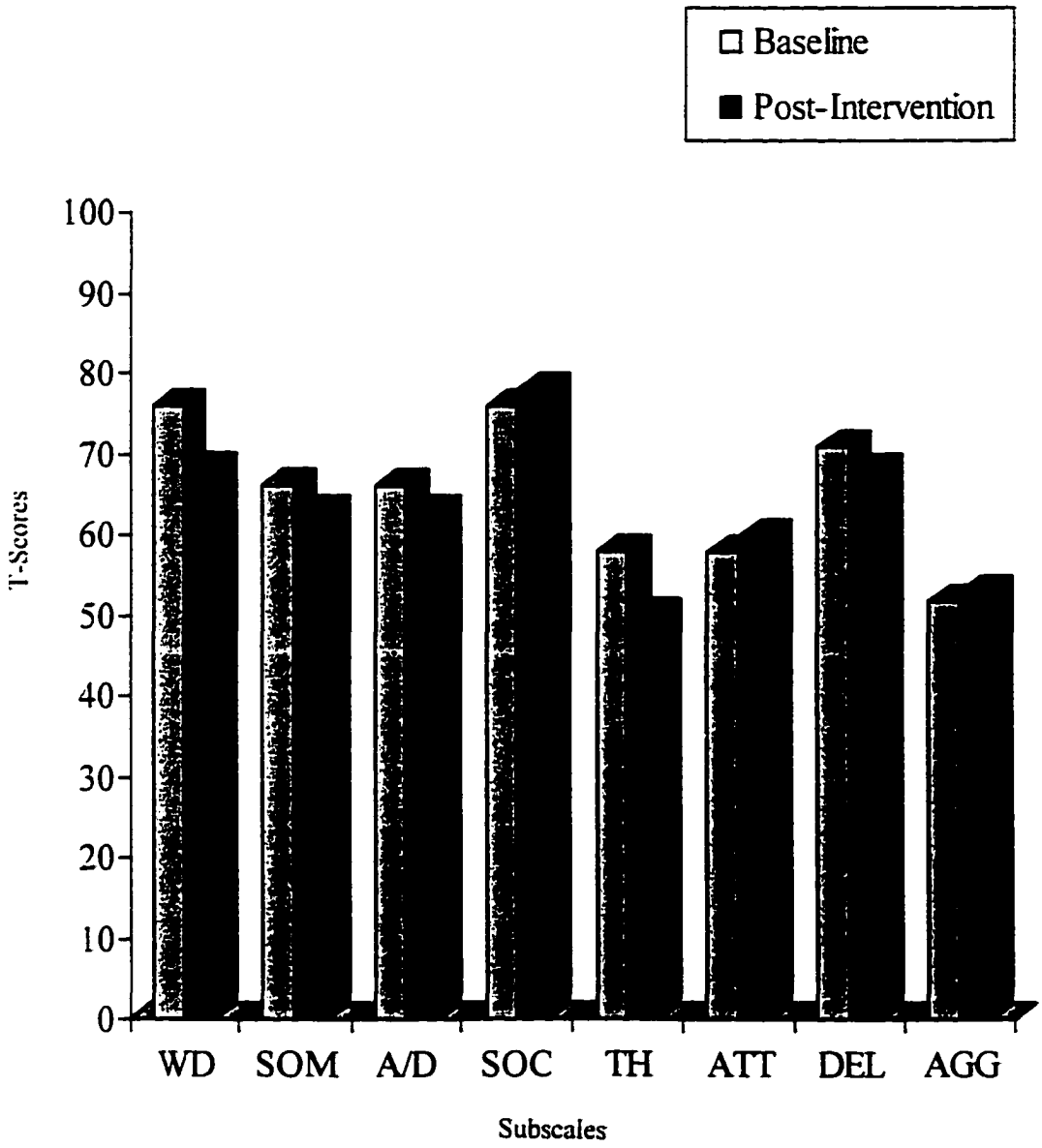


Figure 5: The *t* Scores on Each Subscale at Baseline and Postintervention for Sara.

Point Card

During baseline, Sara had a high percentage of appropriate behaviors and a low percentage of inappropriate behaviors. Across the other phases of the study, both

appropriate and inappropriate behaviors stayed at similar levels. See Figure 3 for percentage of appropriate and inappropriate behavior across phases.

Subject 4: Sue

Behavior Observations

During baseline, intervention, and follow-up, Sue had a low percentage of intervals where positive interactions occurred and a high percentage of intervals where neutral interactions occurred, whereas intervals where negative interactions occurred were low throughout the study. Overall, there was no change in trend for all types of interactions across all phases of the study. See Figure 1 for overall pattern of interactions across the study. However, there was a peak in positive interactions in the middle of intervention. This peak seemed aberrant from Sara's typical interactions pattern. However, the reason for the spike remained unexplained.

Generalization Probes

The generalization probes showed no change across all phases of the study in positive, negative and neutral interactions. At baseline, postintervention, and follow-up, positive interactions were low; neutral interactions were high; and negative interactions were low. See Figure 1 for generalization data.

Frequency of Peer Reports

Sue's baseline mean frequency of peer reports was zero. Sue did not peer report at any time during baseline. With implementation of intervention, Sue began peer reporting at approximately 1 time per day, with a mean of 1.0. However, there

were several days whre Sue did not peer report at all. During follow-up session, Sue did not peer report on any occasion. Table 1 above displays the mean frequency of peer reports across phases.

Sociometric Ratings

During all phases of the study, Sue's mean sociometric ratings were low on the positive questions and high on the tattling question. Further, she was rated more negatively and more often tattling than other children in her classroom across all phases of the study. Table 2 displays Sue's sociometric mean ratings across different phases of the study.

At baseline, postintervention, and follow-up, Sue's individual mean ratings on each question was compared to the mean ranking of the entire classroom using a *Z* test to determine if Sue differed significantly from other children in the classroom. At each phase of the study, Sue was at least 1 standard deviation away from the mean, with a range of 1.25 to 3.58 standard deviations away from the mean. Therefore, it appears that Sue was significantly different on all sociometric questions than other children in her classroom. See Table 3 for *Z* scores for each question.

Peer Nomination Form.

During all phases of the study, Sue's received few positive nominations and several negative nominations. Further, when comparing Sue's number of nominations to the class, Sue received less positive nominations and more negative nominations across all phases of the study. See Table 4 for Sue's nomination data ratings across different phases of the study.

At baseline, postintervention, and follow-up, Sue's individual frequency of liked and disliked nominations were compared to the mean number of nominations of the entire classroom using a Z test to determine if Sue differed significantly from other children in the classroom. These comparisons were made at baseline, postintervention, and follow-up using a *Z* test. At each phase of the study, Sue was at least 1 standard deviation away from the mean, with a range of 1.54 to 2.50, except on positive nominations at follow-up. In general, it appears that Sue received significant more negative nomination and significantly less positive nominations than other children in her classroom. However, at follow-up, Sue did not differ in the number of positive nominations she received. See Table 3 for *Z* scores for frequencies of nominations.

AIR-PS

At baseline, Sue received a AIR-PS *t* score of 57 and 49 for ratings of male and female peer, respectively. Sue's *t* scores on both male peers scale (*t* score = 55) and females peers scale (*t* score = 46) remained at similar levels at postintervention. See Figure 2 for changes in scores from baseline to postintervention.

CBCL

At baseline and postintervention, all of the subscales were either in the borderline or clinical areas of functioning. Figure 6 displays these *t* scores. The elevation in *t* scores suggested that Sue struggled with all of the areas measured at the beginning of the study and continued to struggle in these areas after intervention.

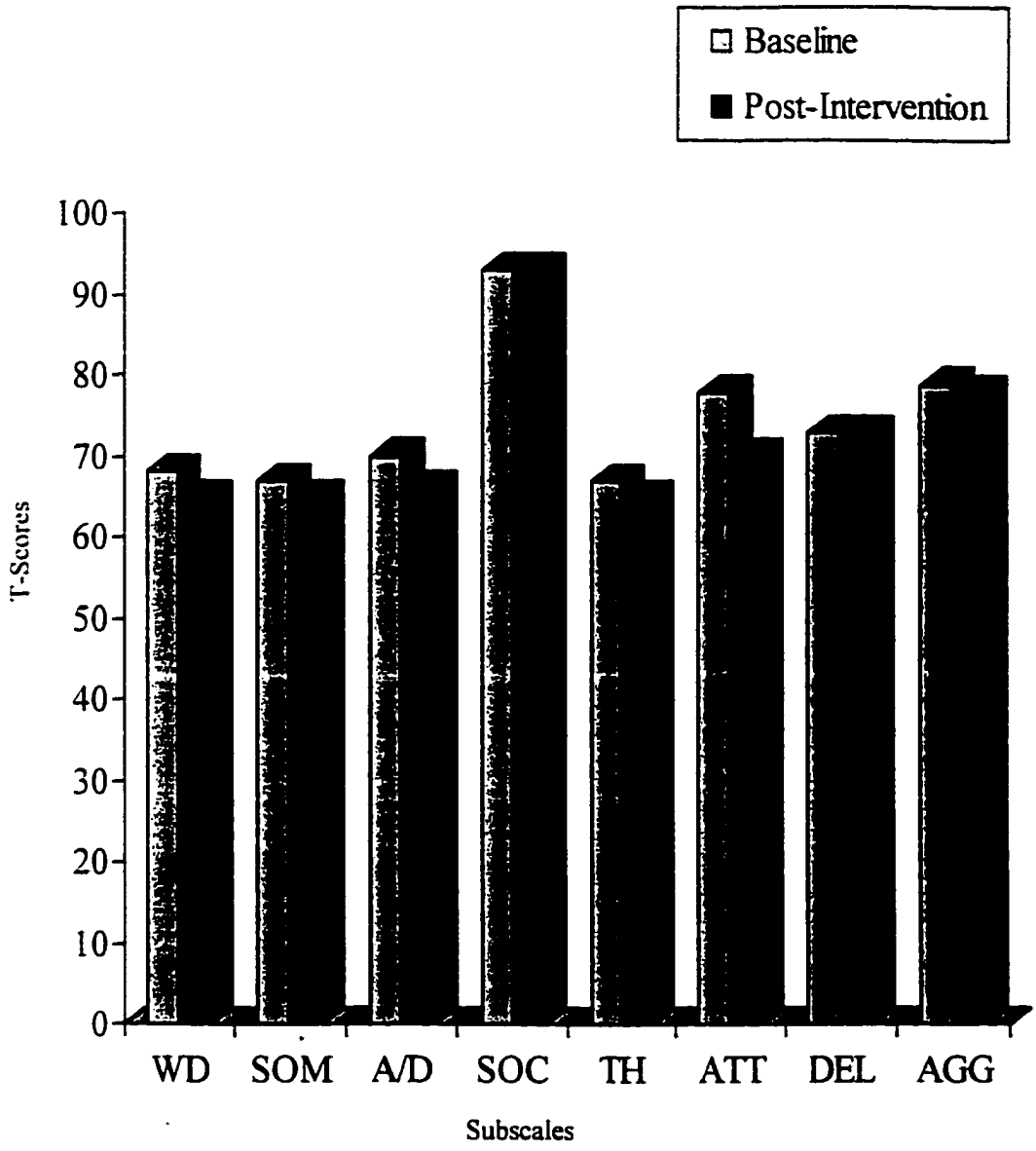


Figure 6. The *t* Scores on Each Subscale at Baseline and Postintervention for Sue.

Point Card

During baseline, Sue had a high percentage of appropriate behaviors and a low percentage that were inappropriate behaviors. Across the other phases of the

study, both appropriate behaviors and inappropriate behaviors stayed at similar levels. See Figure 3 for percentage of appropriate and inappropriate behavior across phases.

Group Data

Sociometric Ratings

Mean ratings for the entire targeted group was compared from baseline to postintervention and from baseline to follow-up using a repeated measures ANOVA. Overall, no significant changes occurred from baseline to postintervention or from baseline to follow-up. Further, correlations were calculated on the number of positive comments, the number of peer nominations, and sociometric ratings. No significant correlations were found between these variables.

AIR-PS

The targeted group's *t* scores were compared from baseline to postintervention using a paired samples *t* test. No significant differences were found for the group from baseline to postintervention.

CBCL

The targeted group's raw scores were compared from baseline to postintervention using a paired samples *t* test. No significant differences were found for the group from baseline to postintervention.

Point-Card Data

The targeted group's positive behavior at baseline was compared to the group's positive behavior at postintervention using a repeated measures ANOVA. No significant differences the group's positive behavior was found from baseline to postintervention.

Interobserver Reliability

Interobserver reliability on interactions was taken for approximately 30% of the observations sessions. The results indicated an overall interobserver reliability of 96%, ranging from 90% to 98%, a peer-initiated interobserver reliability of 89%, ranging from 85% to 95%, and a target-intiated interobserver reliability of 87%, ranging from 84% to 92%.

Treatment Evaluation Inventory

The mean TEI-SF score was 35 (range = 32 to 39), indicating that the teachers believed the intervention was an acceptable way to treat a youths peer relationship problems.

Treatment Integrity Checklist

Treatment integrity checklist were utilized at least once during each phase of the study for each child. All items on the checklist were implemented for each child.

CHAPTER IV

DISCUSSION

Based on reports by teachers and clinical specialists, the children who participated in the study exhibited peer relationship problems. Further, ratings completed by peers indicated that these children were disliked by their peers. The intervention attempted to change the number of positive peer reports (compliments) emitted by the targeted children. It was hypothesized that an increase in the delivery of compliments by the targeted children to teachers would yield several results. First, the increase in compliments would lead to an increase in positive interactions and decrease negative interactions between the targets and his/her peers. Second, the increase in compliments would increase the acceptability and status of the targeted youth, as measured by the Sociometric Rating Form and Peer Nomination Form. Finally, it was hypothesized that the increase in compliments would increase the positive behaviors and decrease the negative behaviors of the targeted youth, as measured by the AIR-PS, CBCL, and Point Card Data.

Overall, all subjects did increase their number of peer reports from baseline to intervention. However, the results of the present study indicated that peer reports given by the targeted youth produced no change in the nature of social interactions, sociometric measures, or standardized paper and pencil measures. All children interacted very little across all phases of the study. Positive behaviors were low at baseline and continued at similar levels during intervention and follow-up. Negative interaction rates were at zero to near zero levels at baseline, intervention, and follow-

up for all 4 subjects. Neutral interactions, a category that also included no interactions, were at very high levels across all phases of the study. Given these results, it appears that all four children engaged in few positive or negative interactions, and, in fact, most of these subjects spent most of their time being passive or not interacting with others at all.

Mean peer ratings and the mean number of nominations remained relatively consistent from baseline, postintervention and follow-up. As compared to other children in their class, all four children had the lowest ratings on the positive sociometric questions and the highest ratings on the tattling question. These negative ratings occurred across all phases of the study. Further, in comparison to their class, all 4 participants had the greatest amount of negative nominations and the least amount of positive nominations across baseline and postintervention. For all but 1 subject, this trend continued through follow-up. During follow-up, 1 subject received few negative nominations. However, this may be explained by the change in homeroom classroom or the small number of children in her classroom.

Finally, positive and negative behaviors, as measured by point cards and the CBCL, as well as social skills, as measured by the AIR-PS, stayed relatively constant from baseline to postintervention. With regard to the point card data, the percentage of positive behaviors stayed relatively high and the percentage of negative behaviors stayed relatively low. These percentages were consistent across time, possibly due to teaching ratios employed at Boys Town. Family teachers and school teachers are instructed to reward and reinforce children on a 4 to 1 ratio. Therefore, unless a child is out of instructional control, the child will continue to have approximately 25% negative behavior and 75% positive behavior on his/her point card.

With regard to the CBCL data, only one of the four children had significant problems in several of the target areas. The other three children had only a few problems in one or two of the target areas. However, the significance of problems did not change from baseline to postintervention. With regard to the AIR-PS data, all of the children had *t* scores in the range of 35 to 55 at both baseline and postintervention. These *t* score ratings indicated that all of the target children had significant problems relating to and getting along with other children their age.

Given the lack of change produced across phases of this study and the contrast with robust behavioral effects reported in previously published PPR, it is important to examine why peer reports produced no effect. There were several differences from the target-directed PPR (the original procedure), which continually showed changes in behavior and status, to the current procedure, peer-directed PPR. First, and most important, the target-directed PPR had several children giving several compliments to the targeted children. In the peer-directed procedure, the targeted peer gave only one compliment to one to three youths per day. In addition, during the current procedure, there were some days where the target child refused to report on the behavior of his or her peers. The refusal on some days by some subjects led to problems with the consistency of compliments given to the peers. Given the low frequency of compliments given to peers and the inconsistency of the compliments given, it seems reasonable to assume that there may have been a decrease in the effectiveness of the peer reports. One compliment by one child, who is unpopular, may not have been enough to change the peers' behavior or perception toward the target child. Further, given the higher frequency and consistency of compliments given in the target-directed PPR, it seems reasonable to assume that the target-directed PPR may have increased the magnitude and significance of these comments.

Second, in the target-directed PPR, the other youths were looking for the positive behaviors in the rejected child. This may have resulted in a change in their own perceptions and behaviors toward the target child. Perhaps when people search for the positive qualities in others, they tend to change their view of those people. Further, perceptions may be controlled by a variety of variables, and perhaps changing a person's perceptions is extremely difficult, especially once a first impression is formed. Therefore, one compliment given by the rejected youth may have not been sufficient to change the peers' perception of the targeted youth, especially when the first impression was one of dislike.

A third difference in the two procedures was how the compliments were delivered. In target-directed PPR, the rejected youth received the compliment publicly and directly. In the peer-directed PPR, the peer received the compliment in private. Perhaps receiving a compliment directly and publicly is more significant and reinforcing than an indirect or private comment.

Besides the procedural differences between the two procedures, there also may have been other variables that contributed to the ineffectiveness of this procedure. First, although all children met criteria for the study and for being labeled socially rejected, it may not have been an appropriate inclusionary criteria. Overall, these children did not fit the typical behavior patterns of a socially rejected child, such as engaging in aggressive and aversive interactions. This was evidenced in their consistently low levels of negative interactions. Therefore, more stringent criteria may have been useful.

These low levels of negative interactions may have also affected the effectiveness of this intervention. Perhaps the negative interactions were too low to actually assess a positive effects. Further, these interactions could be a function of

reactivity to observers watching the targeted child's lunch table or having one adult monitors every lunch table. The presence of an adult may have decreased the aversive and negative nature of the targeted children's interactions. Therefore, observing at a different time or in a different way may have produced more effective results.

Further, it is also possible that the definition of neutral interactions was too broad. Neutral interactions occurred whenever the targeted youth and peers were in close proximity to each other but did not interact. Perhaps these rejected youths were actually shunned or ignored by peers. Therefore, these two areas could have been captured better with two separate categories of interactions. One category may have been neutral interactions, which would have included only shunning or ignoring by peers may have been more useful, whereas the other category may have been no interactions, which would have included only the times when peers were in close proximity to each other but no one was interacting.

In addition, although tattling was one of the inclusionary criterion, there was no change in ratings of tattling behavior as measured by the sociometric question given to peers from baseline to postintervention. It is possible that a continuation of tattling at high levels may have masked any positive effects of increasing peer-directed compliments. Therefore, the present results may have indicated more positive effects on social behavior and status of the target children if their tattling behavior had decreased.

Also, although treatment integrity checks were conducted, perhaps the assessment of the intervention was not sufficient to ensure that the all components of the intervention were implemented. For example, treatment integrity checks were completed only twice during the intervention. Therefore, many components of the intervention may have been omitted during the days when treatment integrity checks

were not completed, such as telling the complimented youth about the compliment, giving the complimented youth points, prompting the targeted youths to peer report, or telling the complimented youth the giver of the compliment. Therefore, if there was a lack of consistent and systematic implementation of the intervention, the effectiveness of the intervention may have decreased. Further, more integrity checks or having the principal investigator implement the procedure would have been useful.

In addition, it is important to recognize that the lack of change in the standardized measures may have occurred for several reasons. First, the CBCL and AIR-PS may not have captured the behaviors that would have changed with this procedure. Further, both of these questionnaires asked about perceptions and behaviors over the last 6 months. Perhaps a questionnaire related to their perceptions of how their male and female relationship have changed over the last 2 or 3 weeks would have been more useful. The target children may have felt they were getting along better with peers, but the questionnaires were unable to measure those changes. Another important factor is that the CBCL was distributed to family teachers, who live and work with the child in the home. Perhaps having the teacher complete the CBCL would have been more useful because the teachers are the individuals who view the target children in the setting where the intervention took place. Further, a questionnaire related to behavioral changes specifically related to the last 2 or 3 weeks would have been more useful since teachers or parents reported having noticed a change in behavior.

Overall, this study did not enhance or support the use of positive peer reporting. In general, the number of peer reports given by the targeted youths did increase from baseline to intervention. However, this increase in peer reports did not have a collateral positive effect on interactions and other measures of social

acceptability. Given the lack of results produced by peer-directed PPR, this procedure was shown to be ineffective under these circumstances and did not change the interaction patterns or social status of rejected youth. However, the target-directed procedure has consistently shown to increase positive interactions and social status. Therefore, it seems more feasible to continue to use the target-directed procedure with children who are rejected, instead of the peer-directed procedure.

Even though the peer-directed procedure did not produce results, perhaps it increased understanding into why the target-directed procedure produced behavior and social status changes. It may be the case that the target-directed procedure was effective because the target child received several comments per day; those comments were publicly announced; the comments were delivered from several different youths; and the peers may have changed some of their perceptions because they needed to look for the positive behaviors and characteristics of a rejected child.

If these variables are important, than further research examining these variables may be useful. For example, a study might compare the effects of public versus private compliments using the target-directed procedure. Beside the expanding the research to test the aforementioned variables, further replication and expansion of target-directed procedure would also be useful. First, expanding the behavior observation coding to include who initiates the interaction may be useful. Such a differentiation would be beneficial in concluding which group, target or peer, actually changed their interaction styles. Second, the target-directed procedure may be enhanced by using more standardized measurements, especially those examining the perceptions of others. These types of measurements would be useful in determining if perceptions of the targeted youth or peers actually changed after intervention. Third, examining the generalization effect of the target-directed procedure may also be

useful in determining if these behaviors, perceptions, and social status changes are seen across settings and people.

In conclusion, it appears that the peer-directed procedure was not beneficial in changing social interactions or status. However, given the effects of previous research, it appears that the target-directed procedures may produce positive effects on social status and interactions. Therefore, it would seem feasible to implement and continue to research the effectiveness of the target-directed procedure in changing the social interactions and acceptability of rejected children.

Appendix A

Expanded Literature Review

Effects of Positive Peer Reporting on Social Status and Acceptance

Approximately 10–15% of children have peer relation difficulties that lead to social unacceptance (Asher & Rose, 1997). Social unacceptance, in turn, may lead to several problems later in life (McFadyen-Ketchum & Dodge, 1998). For example, unaccepted children are more likely than accepted children to become pregnant in adolescence (Underwood, Kupersmidt, & Coie, 1996), drop out of high school, engage in delinquent behavior, develop psychopathology, and become unemployed (Coie, Terry, Lenox, & Lochman, 1995; Gresham, MacMillan, & Bocian, 1997; Parker & Asher, 1987). Given the problems associated with social difficulties, it is important that socially disliked children be identified, as early identification and amelioration of behaviors contributing to an unaccepted status may reduce the risk of later problems (Elliott & Gresham, 1993).

The first step in identifying such behaviors is to define social unacceptance. Children who are socially unaccepted are those who are disliked by their peers, and this social dislike can be classified in two main ways (Coie, Dodge, & Coppotelli, 1982). The first type of child is classified as socially neglected. This type of child does not interact with other peers, and consequently, he/she is ignored passively and neglected by others (Krehbiel & Milich, 1986). The second type of unaccepted child is classified as socially rejected. This type of child exhibits behaviors that other children find aversive and other children distance themselves from the disliked child. Peers do not like to play or work with these children (Krehbiel & Milich, 1986). There are a number of behaviors that can cause children to experience the two aforementioned social difficulties (i.e., rejection or neglect). Neglected children seem to experience difficulties because they lack the skills necessary to interact positively

with peers; in other words, they display a social skills deficit. In contrast, rejected children have the requisite social skills but also exhibit negative behaviors that interfere with proper exhibition of these skills. These children may emit appropriate social skills, but engage in other behaviors which make the social interaction aversive (Elliott & Busse, 1991; Krehbiel & Milich, 1986).

Behaviors Contributing to Social Neglect

As stated above, it is believed that neglected children have such a deficit in prosocial behavior. Children who have a deficit in those social skills, may be unable to initiate or receive peer conversation or engage in play behavior effectively (Dodge, 1983; Elliott & Gresham, 1993). For example, if a peer asked a neglected child to play, that child may run away or ignore his/her peer. Perhaps such children are neglected because they fail to impact the peer environment either positively or negatively. Thus, peers are unlikely to either approach or avoid such an individual (Krehbiel & Milich, 1986).

A number of studies have investigated the negative social behaviors commonly associated with peer neglect. These studies consistently show that children who are neglected tend to have high rates of inappropriate behaviors. Children who are neglected seem to have inappropriate initiation and conversational skills (Coie & Kupersmidt, 1983; Gottman, 1977). Further, these children tend to have a high frequency of solitary play and a low frequency of prosocial behavior (Coie et al., 1982; Dodge, 1983; Newcomb, Bukowski, & Pattee, 1993).

The inability of these children to interact with others was supported by Gottman (1977), who examined the relationship between peer acceptance and interaction skills with 113 children in Head Start classrooms. Two separate coding

systems were utilized. One coding system measured the frequency and quality of peer interactions, and the other system measured the frequency of shy behaviors. The author found that socially unaccepted children engaged in low rates of quality peer interactions and high rates of hovering behaviors. Further, the children who engaged in these behaviors tended to be those children who were neglected and withdrawn.

These findings were supported further by Elliott and Gresham (1993) and Coie and Kupersmidt (1983). Elliott and Gresham (1993) found that socially neglected children tended to "hover" around play groups (observing but not interacting with peer play groups) and ignore peer-initiated play. Further, Coie and Kupersmidt (1983) found that neglected children tended to be similar to popular children, except in their interaction patterns. Specifically, neglected children had a low frequency of both initiation and reception of interactions. These children rarely initiated interactions, kept to themselves, were not interactive, and were not seen as aversive.

The high frequency of inappropriate behavior exhibited by socially neglected children was also supported by Dodge (1983), who examined relationship between sociometric status and social behaviors of 48 previously unacquainted second-grade males. The boys were brought together in six playgroups of 8 boys each. Playgroups were observed during free-play, where interactive behaviors of the boys were recorded. All boys were identified into 1 of 5 categories including rejected, neglected, controversial, average, and popular. The behaviors of these groups then were analyzed to determine the behaviors associated with each group. When examining the relationship between inclusion in a specific status group and social behaviors, several results were found. Boys who became neglected were those who engaged in inappropriate behaviors. Neglected males approached peers quite frequently;

however, their overall frequency of interactions were low. Neglected children spent significantly more time in solitary play, less time conversing, and less time in extraneous verbalizations than other children.

In further support of these high frequencies of inappropriate behavior in socially neglected children, Coie et al. (1982) investigated the behaviors associated with peers social preferences and social status. Subjects included all children in the third, fifth, and eighth-grade classrooms at a junior high school located in southern United States. All subjects were interviewed regarding likeability and behaviors of other children in their classroom. These children were then divided into five groups (rejected, neglected, controversial, average, and popular). The authors examined the behaviors correlated with each social status group. The neglected children lacked leadership ability, were inactive and shy, did not seek help from others, and tended to be overlooked by others.

Further, Newcomb et al. (1993) conducted a meta-analysis to assess the behavioral differences in children who belonged to one of five categories including rejected, neglected, controversial, average, and popular. Neglected children evidenced the fewest differences from the average children; however, there was a definite difference in behavior patterns. Neglected children displayed less social interactions and fewer positive social actions and traits than average children. Further, neglected children evidenced more withdrawal behaviors than average children.

Behaviors Contributing to Social Rejection

Unlike neglected children who have a deficit in social skills, rejected children often are disliked for the presence, not the absence, of behavior. Rejected children

may emit appropriate social skills, but engage in other behaviors which make the social interaction aversive. In other words, socially rejected children seem to possess the skills necessary to interact, but they exhibit high rates of inappropriate and negative behaviors that subsequently lead to negative outcomes and minimize positive outcomes. (Asher & Rose, 1997; Dishion, Andrews, & Crosby, 1995; Dodge, 1983; Foster, Inderbitzen, & Nagle, 1993). For example, if a child were being consistently aggressive around his/her peers, then peers would actively avoid the aggressive child, thus decreasing the opportunity for a child to display his/her prosocial behaviors.

A number of studies have investigated the negative social behaviors commonly associated with peer rejection. These studies consistently showed that children who are rejected tended to show high rates of inappropriate behaviors. Children who are rejected had a high frequency of aggressive behavior, low frequency of prosocial behavior, inappropriate initiation skills, and inappropriate conversation skills (Coie et al., 1982; Coie & Kupersmidt, 1983; Dodge, 1983; Dodge, Coie, & Brakke, 1982; Dodge, Coie, Pettit, & Price, 1990; Newcomb et al., 1993).

For example, as described above, Coie et al. (1982) examined the behaviors associated with social status and preference. They found that children who are socially rejected had few prosocial behaviors and several inappropriate and aversive behaviors. Socially rejected children had low scores on items related to cooperation and leadership. Further, they received high scores on items related to disruption, fighting, and overactivity.

Further, in the aforementioned study by Dodge (1983), socially rejected children were found to exhibit several socially inappropriate behaviors. Like neglected children, rejected children displayed several inappropriate behaviors, but

unlike the neglected children, the rejected children did not engage in solitary play. Instead, rejected children engaged in a great deal of aggressive behavior and low rates of prosocial behavior. For example, rejected children displayed significantly more aggressive play, hostile verbalizations, exclusions of peers, and hitting of peers than any other sociometric group. Further, rejected children engaged in low frequency of cooperative play and social conversation. Rejected children frequently approached peers; however, these approaches rarely led to social conversation. In addition, rejected children did not spend much time in solitary play, but did spend a significant amount of time interacting aggressively with peers. Thus, even though interactions and verbalizations were frequent, the interactions contained a high occurrence of aggressive behaviors.

Similar results were reported by Coie and Kupersmidt (1983), who evaluated the establishment of social status and behaviors of boys in new social circumstances. Boys were divided into groups of 4 boys each. Four categories of behaviors were observed and coded. These categories included active interaction, parallel play, solitary appropriate activity, and solitary inappropriate activity. The results indicated that rejected children had significantly more inappropriate interactions than average and popular children. Rejected children were very talkative and active, inattentive and off-task, aggressive, and pugnacious.

Further, Dodge et al. (1990) examined the social behaviors of popular, rejected, neglected, and average first and third grade boys. The boys were divided into 23 groups of 5 or 6 boys each. These groups were observed for 45-min during free-play. Six behaviors were observed including solitary focused behavior, solitary aimless behavior, parallel play, cooperative play, social conversation, and rough play. Along with these behaviors, three types of aggressive behaviors (reactive aggression,

instrumental aggression, and bullying) were observed and coded. Results indicated that rejected boys engaged in the kinds of behaviors that are likely to bring negative response from peers. Rejected children displayed significantly higher rates of reactive and instrumental aggression than other sociometric groups. Further, they engaged in low rates of positive social interactions with peers, including cooperative play, social conversation, and leadership behaviors.

Another study by Putallaz and Gottman (1981) found that peers labeled interaction styles of rejected children as aversive. The authors observed popular and unpopular children joining a game being played by other children. Unpopular children were more likely to experience more difficulty than popular children when entering a group. However, the authors found that difficulty entering a group was not reflective of a skills-deficit problem because unpopular children attempted entry just as often as the popular children. Instead, the difficulty related to the negative behaviors used to gain entry. For example, unpopular children disagreed more often, concentrated on the negative, diverted the groups' attention to themselves, attempted to exert control, and asked several questions. Despite rejected children being highly interactive with others, they were less apt to stay at work or play with the rest of the group, more verbally and physically aversive, and less likely to conform to group stereotypes. Overall, the results suggested that negative peer reactions tended to be a function of two main factors including: (a) high proportions of aggressiveness in interactions, and (b) low proportions of prosocial and cooperative play.

Further confirming the aforementioned findings, Newcombe et al. (1993) conducted a meta-analysis to assess the behavioral differences in children who belonged to one of five categories including rejected, neglected, controversial, average, and popular. Rejected children were found to be more aggressive and less

cognitively skilled than average children. Further, the rejected children lacked positive social behaviors and qualities to balance their aggressive behaviors. For example, they lacked positive social actions, social traits, and friendship relations. Further, these children had lower levels of social interactions compared to average children. Given these results, the authors concluded that rejected children have a specific pattern of behavior. The pattern began with them waiting and hovering, and then they moved in quickly with disruptive and aggressive behavior. This aggressive and disruptive behavior then resulted in further rejection.

In addition to the number of aforementioned variables potentially contributing to social unaccceptance, another factor, tattling, also appears to be associated with social rejection. Currently, the author and colleagues are conducting a correlational study between tattling and social rejection. Preliminary results indicate a significant negative correlation between social acceptance and perceived tattling (Gilman, Woods, Freeman, Short, McGrath, Handwerk, & Friman, 1999). These results should be viewed tentatively as they have not been replicated and do not provide causative evidence (i.e., does tattling lead to social rejection or is tattling a correlate of social rejection). Nevertheless, these results suggest that it is important to evaluate the presence of tattling in children who are socially rejected.

In conclusion, there seems to be two main reasons for peer unacceptance: social skills deficit and an excess of negative behaviors. Whereas skills deficits arise because children have not been adequately taught the behaviors necessary to act appropriately, other children seem to have an excess of negative behaviors (i.e., aggressiveness, tattling, and uncooperativeness) which interfere with their acceptance. Given the behavioral differences between these types of children, it is important to assess which children have deficits and which have excesses in order to

better plan for effective treatments. There are three main ways assessment are used to guide treatments. First, assessment identifies children who are socially rejected. Second, assessment helps to differentiate between those who have a social skills deficit and those who have an excess of negative behavior. Finally, assessment instruments help identify the negative behaviors interfering with social acceptance.

Assessing Children's Social Status and Behavior

In this section the strategies used to assess the different categories of social status and their behavioral indicators are discussed. There are four main methods of assessing children's social status and relevant behaviors: teacher reports, self-reports, behavior observation, and sociometric measures (Elliott & Busse, 1991).

Sociometric Measures

Sociometric measures are the most common and most useful in labeling children who are socially rejected. Sociometric measures do not directly assess behavior problems per se. Rather, sociometric measures allow for the collection of peer information about the peers' perceptions social status, the primary definition of social rejection (Coie et al., 1990). The sociometric measures are important because social rejection is not defined according to a set of behaviors, but rather is a consequence of children's perceptions of another child. Put another way, the difference between accepted and unaccepted children is not due to behavior differences; rather, it is a function of peers' social perceptions Since social rejection is based on perceptions of peers, it is essential that sociometric measures be employed, because these measures are the only means to identify peers perceptions.

Traditionally, sociometric measures are is conducted in two ways, through peer nomination procedures or use of roster rating scales. Of the two, nomination measures are the most commonly used (Green & Forehand, 1980). Using this method, peer are asked to nominate a specified number of classmates on specific questions, such as likability and dislikability. For example, children in a classroom are asked to nominate three children whom they like most and three children whom they like least.

Based on these nominations, Coie et al. (1982) were able to identify five significantly different types of children based on the frequency of nominations the child received. For each child a frequency count of positive and negative nominations was calculated, and then an overall preference was determined by subtracting the "disliked" nominations from the "liked" nominations. This preference score was then transformed into a *Z* score. Finally, the *Z* scores were used to determine to which category the child belonged. Depending on whether the child fell one standard deviation below the mean or one standard deviation above the mean determined which of the five categories the child belonged: (a) popular (one standard deviation above the mean on positive nominations and below the mean on negative nominations); (b) rejected children (one standard deviation above the mean on negative nominations and below the mean on positive nominations); (c) neglected children (one standard deviation below the mean on positive and negative nominations); (d) controversial children (one standard deviations above the mean on both negative and positive nominations); and (e) average children (children who did not fit into any of the other categories).

These classifications have withstood the scrutiny of recent reviews (Newcombe et al., 1993). Using standardized measures (i.e., CBCL, Child

Depression Inventory, and behavior observations), the authors found that the categories of children were a valid and reliable way to classify children and predict the behaviors corresponding to each category. The results of this study showed that the sociometric status groups were distinct and each group had distinct behavioral patterns (Newcombe et al., 1993).

Although the peer nomination method is the most common sociometric measure, another popular measure of social status is the roster-rating scales (Roistacher, 1974). Roster-rating scales require every child in a class to rate their classmates on certain criteria using a Likert-type scale. The criteria for classifying social status are similar to the nomination scales criteria, but the method of data collection is different. Instead of obtaining a simple frequency of nominations, ordinal ratings on each criterion are collected. For example, the children may be asked to respond to "How much do you like to play with each child?" or "How much do you dislike each child?" by rating each other on a 5-point Likert scale from "1" being not at all to "5" being very much. The higher the rating, the more the child is liked by his/her peers (Roistacher, 1974), and the lower the ratings, the more the child is socially rejected.

In summary, sociometric measures are the most widely used instruments to identify socially rejected children. Their frequent use occurs for several reasons. First, they are quick and easy to administer. Second, they produce important and necessary data (Foster et al., 1993). Unlike information gathered using other measures, these measures provide the clinician with data on children's perceptions of other children. Third, the measurements are reliable. For example, Coie and Dodge (1983) found that there was a high degree of stability over 3 and 5 years for sociometric ratings of behavioral indices. Fourth, peers are an important source of information because they

are the direct recipients of a child's social performance, and they view the child in varied situations (Foster et al., 1993). Fifth, sociometric ratings show moderate to high levels of concurrent validity with other measures of peer acceptance and rejection (Lardon & Jason, 1992; Oden & Asher, 1977).

Teacher and Self-Report

Teacher and self-report measures supplement/compliment sociometric ratings by identifying the problem behaviors and skills deficits that may be contributing to the peer relationship problems, such as peer social skills or aggressive behaviors (Foster et al., 1993). However, these instruments typically rely on subjective estimates or recollections of social interaction patterns rather than providing direct, real time observations of social interactions. Overall, these measures are used to assess children's general competency and behavior related to social interactions (Foster et al., 1993). For example, these measure contain questions related to how confident the child feels when interacting with others, perceptions of being likded or disliked, and frequency of isolation or involvement with peers. Examples of teacher-report measures would include the Child Behavior Checklist (Achenbach, 1991) and Social Skills Rating Scale (Gresham & Elliott, 1990). The Child Behavior Checklist is a 118-item questionnaire that is useful for gathering information about both problematic behaviors (i.e., aggression, withdrawal, attention difficulties, etc.) and social relationship problems. The Social Skills Rating Scale is a 57-item questionnaire that contains several questions related to confidence around others, avoidance of peers and adults, frequency of social initiation, and involvement in activities.

Self-report measures require children to evaluate their own social behavior. These measures can be used to assess children's general competency related to social

skills (Foster et al., 1993). For example, these measures contain questions that prompt a child to report about how confident he/she feels when interacting with others, perceptions of being liked or disliked, and frequency of isolation or involvement with peers. Examples of self-report measures include the Assessment of Interpersonal Relations (Bracken, 1993) and Social Skills Rating Scale (Gresham & Elliott, 1990). The Assessment of Interpersonal Relations (AIR) is a 35-item scale investigating the self-perceived quality of peer relations in such areas as time spent with peers, acceptance by peers, likability by peers, and relationships with peers. The Social Skills Rating Scale is a 57-item questionnaire containing several questions related to confidence around others, avoidance of peers and adults, frequency of social initiation, and involvement in activities.

Of the four methods used to identify socially rejected children, teacher- and self-report measures are used least frequently (Green & Forehand, 1980). The lack of reliance on teacher and self-reports to identify social rejection stems from inaccuracies in both the raters and the instruments (Foster et al., 1993; Green & Forehand, 1980). Whereas self-reports are inaccurate measures of social status because children inflate their social status and competency, teacher reports are inaccurate because teachers have a limited sampling of peer interactions (Foster et al., 1993). For example, teachers only observe classroom interactions. To get a more accurate assessment, teachers need to observe behaviors in a variety of settings, such as recess, lunch, and after school time (Foster et al., 1993).

In addition to the concerns with the accuracy of the raters, psychometric properties of teacher and self-report may be problematic. Research has shown a low correlation between self-report measures of social rejection or behavior observation and sociometric measures (Foster et al., 1993; Green & Forehand, 1980). Teacher-

report measures are inaccurate because they lack specificity related to the social skills necessary when addressing an adult versus peer. That is, these measures do not differentiate between social skills used with adults as compared to the social skills used with peers. With respect to behaviors, these measures do not differentiate between reception of interactions and initiation of interactions (Foster et al., 1993).

Despite these limitations, there are several benefits to using self-report and teacher-report measures when assessing social rejection or correlated behaviors. First, these measures provide data that are unavailable with behavior observations and sociometric measures (Krehbiel & Milich, 1986). For example, these measures provide information regarding self and teacher perceptions of social skills. Second, these measures enhance assessment and treatment direction. For example, if a child reports to being anxious in social situations, then perhaps treatment should focus on anxiety reduction. Third, these instruments identify areas for observation. For example, if information from teacher or self-report measures indicates that a child had problems with exiting from social situations, then treatment or observation may target specific exit behaviors (McFadyen-Ketchum & Dodge, 1998).

In summary, although self-report and teacher-report measures enhance identification and assessment of socially rejected children, additional strategies are needed for a thorough assessment of socially rejected children. These strategies include both the aforementioned sociometric measures, as well as behavior observations (Foster et al., 1993; Green & Forehand, 1980).

Behavior Observation

As with teacher and self-report, behavior observations are not used to categorize children as "socially rejected." Instead behavior observation assess specific

problem behaviors associated with peer rejection. Behavior observation entails directly observing individuals across varying contexts and behaviors. The contexts in which observations occur vary according to settings, such as a playground, a cafeteria, and a classroom during free play or free time (Foster et al., 1993). In addition to the varying settings in which children are observed, the target behaviors also vary. When observing social interactions, the two main target behaviors include negative and positive behaviors (e.g., cooperativeness, hitting, and sharing) and negative and positive interactions (e.g., interrupting, hovering, not making eye contact, and asking someone to play) (Foster et al., 1993; Green & Forehand, 1980).

Besides varying settings and behaviors, behavior observations also differ according to the type of coding that is done regarding the behavior. For example, some coding systems target the frequency of interaction; whereas, others target the duration of interaction (Green & Forehand, 1980). However, most observational coding systems include molar categories of behavior, such as positive and negative interactions, social initiations, or solitary or interactive play. These behavior observations are more qualitative in nature by aiming to capture information regarding the quality of an interaction or behavior. Some codes, however, include more molecular categories of behavior, such as affective expressions, compliments, question asking. In general, these observations aim to capture specific behaviors related to social skills (Foster et al., 1993).

Behavior observations are a necessary component to identifying problem behaviors in socially rejected children for several reasons. First, behavior observations increase the likelihood of accurate identification by contributing to a functional analysis of important social behaviors (Elliott & Busse, 1991). That is, this method allows the assessor to determine specific antecedents and consequences surrounding

problem social behavior (Gresham & Evans, 1987). Second, behavior observation is the only direct measure of behavior (Bellack & Hersen, 1988). Specifically, behavior observations allow for behaviors to be recorded as they occur. Whereas, standardized measures rely on memory and recall. Third, behavior observations are an objective measurement of behavior. That is, behavior observations often do not include information that rely on inferences and judgments, which is typically the case with subjective measures (Bellack & Hersen, 1988).

Even though behavior observations are the best and most efficient way to capture objective data in the naturalistic environment, behavior observations are not without their limitations. First, behavior observations can only capture a small number of behaviors, whereas standardized measurements often capture several behaviors. Second, behavior observations are time consuming and effortful. Third, defining the target behaviors often create difficulties by being ambiguous, misunderstood, unclear, and subjective. Definitions have to be objective, clear, and complete. Definitions need to refer to observable characteristics of the target behaviors and avoid references to intent, internal states, and other private events (Bellack & Hersen, 1988). Fourth, there is often a lack of reliability when one person conducts all the observations. Therefore, several observers must be trained to collect reliability data, which is also very time consuming and effortful (McFadyen-Ketchum & Dodge, 1998). For example, observers need to be trained and perform to an adequate level of performance, memorize the definitions verbatim, and retrained at systematic times during the investigation. Further, behavior observations often results in the reactivity of subjects. Reactivity refers to the fact that subjects may respond atypically as a result of being aware that their behavior is being observed (Bellack &

Hersen, 1988). Last, children are difficult to observe. Most children are mobile and active causing observations to be difficult and cumbersome (Foster et al., 1993).

When examining the four assessment techniques (self-report, teacher report, behavior observation, and sociometric measures), each appears to provide important information when assessing socially rejected children. Taking the strengths of these different measures into consideration, a thorough assessment of a socially unaccepted child may be best completed by using all four sources of information. Thus, it is important that the identification of socially rejected children is accomplished by the use of multiple sources of information, rather than a reliance on a single method.

Given the different ways and purposes of the assessment measures, it appears that working with children with social problems is a multi-step process. First, using the sociometric assessments, children are identified as rejected or neglected. Second, using behavior observation and teacher and self-report, the behavioral correlates of social status are determined. Finally, focus is placed on interventions that target the problem behaviors identified with the teacher and self reports, as well as behavior observation. Given the differences in behavior problems associated with being rejected or neglected, it is important that treatment selection and implementation reflect those differences. Children with social skills deficits (neglected children) most likely will require interventions designed to foster the acquisition and use of social skills, whereas children with behavior excesses (rejected children) most likely will require interventions that reduce these behavior excesses and train or motivate more appropriate replacement behaviors (Coie & Cillessen, 1993; Dodge, Murphy, & Buchsbaum, 1984).

Interventions

Skill Deficit Interventions

When a social problem involves a deficit in social skills, then the treatment of choice is an intervention that directly helps the person acquire new social skills and encourages or motivates appropriate use of these skills. These interventions often include all or some of the following components: (a) coaching, (b) modeling, (c) behavioral rehearsal, and (d) reinforcement. Whereas coaching involves instructing and teaching children socially appropriate behaviors, such as participation, cooperation, communication, and validation, modeling involves conveying information on social skills performance through the use of live or filmed behavioral performances. Rehearsal involves the repeated practice of social skills either overtly, covertly, or verbally. The last component, reinforcement, involves providing feedback and reinforcers contingent on performance. This is accomplished by informing the child if the skill was successfully completed, providing the child with specific information regarding correct or incorrect performance of the social skill, and presenting the child with tangible or verbal rewards (Gresham & Nagle, 1980; Oden & Asher, 1977).

Not only are the above procedures the most common interventions with social skills deficits (Vincent, Houlihan, & Zwart, 1993), they are the most well-researched. Outcome data suggest these approaches can result in a positive change in social skills and acceptance (Berlere, Gross, & Drabman, 1982; Bierman, Miller, & Stabb, 1987; Bulkeley & Cramer, 1994; Cooke & Apolloni, 1976; Gresham & Nagle, 1980; Ladd, 1981; Matson, Fee, Coe, & Smith, 1991; and Oden & Asher, 1977).

For example, Bierman, Miller, and Stabb (1987) evaluated the effects of social skills training on social behavior and peer acceptance. Subjects included 32 boys in grades 1–3 who were selected on the basis of negative sociometric nominations and social behaviors. Boys were randomly assigned to 1 of 4 treatment conditions: (a) instructions, (b) prohibitions, (c) instructions and prohibitions, and (d) no treatment control. The instruction condition included the description and practice of target skills, as well as behavior examples of each of these skills. Target skills included questioning others, sharing, and helping. In the prohibition condition, a set of rules was presented, along with a response cost for exhibiting any of the behaviors. The rules included no fighting, arguing, yelling, being mean, whining, or showing a bad temper. Behavior observations were collected prior to and through treatment and at 6-week follow-up. The behaviors observed and coded included: (a) positive interactions, (b) negative interactions, (c) neutral interactions, and (d) no interactions. Sociometric rating scales and aggression rating were also collected at baseline, postintervention, and follow-up. Prohibitions resulted in a decrease in negative behaviors and an increase in positive responses from peers. Instruction increased positive peer interactions and sustained those interaction at follow-up. By follow-up, boys who received instruction only were initiating and receiving fewer negative behaviors. They were initiating and receiving more positive interactions. The combined package resulted in additive effects. The same results were found with this group as were found with each individual group. However, only the combined group showed improvements in sociometric ratings.

Berlere et al. (1982) implemented a social skills training package with three children with learning disabilities who ranged in age from 8 to 10 years. Two specific behaviors, eye contact and appropriate verbal content were targeted. The training

included description of the target behavior, rationale for why the behavior was important, role-play/training scenarios, and generalization training across several other settings. Using a multiple baseline across subjects, the findings suggested an improvement in role-play performance of social skills and a moderate degree of generalization across other settings and nontargeted children.

Bulkeley and Cramer (1994) implemented a social skills intervention with 26 male and female 12- and 13-year-old students. The subjects were randomly assigned to one of two groups: Individualized Training and Standardized Training. Both groups received a 10-session social skills package. The format of presentation was the only difference between the two groups; those individuals in the Individualized Training group were more involved with treatment. Dependent variables included a self-report questionnaire, a sociometric questionnaire, and a role-taking test. Overall, both training interventions had beneficial effects on social acceptance and social skills. In the Individualized Training condition, significant change was found on all three measures. In the Standardized Training condition, significant change was found on the role-taking test and the self-report questionnaire, but no significant change was found in sociometric status.

Similar results were reported by Cooke and Apolloni (1976), who implemented an intervention with several socially unskilled children. Specifically, the authors trained four prosocial behaviors using instruction, modeling, and praise. The results indicated that all positive social behaviors increased, and generalization effects occurred with several behaviors. Furthermore, the training of these behaviors had desirable effects on untrained subjects, as untrained children also increased their prosocial behaviors.

Further, Ladd (1981) evaluated the effectiveness of social skills training on social status and behavior of third grades. Roster-rating scales were administered to six third-grade classrooms. From those ratings, 36 unaccepted children were assigned to either a social skills training group, control group, or nonspecific task group. Children in the skills training group were trained in six social skills: question asking, verbal instructing, support giving, social negative, social-other, and nonsocial. Skill training had beneficial and lasting effects on children's social acceptance, skilled behaviors, and nonsocial behaviors. The skills training intervention produced a significant increase in question-asking and leading behaviors, and a significant decrease in nonsocial behaviors.

Similar results were found with similar procedures by Mize and Ladd (1990), who implemented a social skills training package with 33 preschool children. Children who were unaccepted and had poor social skills were randomly assigned to a skills training group or nonspecific task group. Children in the skills training group were coached on four skills including leading peers, asking questions of peers, making comments to peers, and supporting peers. Skills training had a significant effect on sociometric measures and skill use. Changes in sociometric ratings were not seen from pretest to posttest, but rather, sociometric ratings continued to improve through follow-up. Children in the skills training group doubled their use of social skills from pretest to posttest. These changes were not a function of higher rates of peer interactions, but instead, they were a function of a significant increase in the four trained social behaviors.

Matson et al. (1991) evaluated the effects of a social skills program on social behavior with 28 4- and 5-year-old children with development delays. The 28 children were randomly assigned to either a treatment group or control group. The

treatment group consisted of 14 children who received a training package including modeling, role-playing, instruction, and reinforcement. Training was implement twice weekly for 6 weeks. The social skills training had a positive effect on social skills and behavior. Children who received the social skills training significantly increased the number of social skills they emitted, and significantly decreased the number of inappropriate social behaviors they emitted.

Gresham and Nagle (1980) compared the effects of three treatment methods, coaching, modeling, and a combination of the two, with 40 socially isolated children in the third and fourth grade. The children were divided into four groups based on the type of intervention received (modeling, coaching, combination of the two, and a control group). Results suggested that coaching, modeling and a combination of the two were functionally equivalent. Specifically, all three interventions were effective in increasing peers' ratings of rejected children. Further, the combined intervention did not produce better results then coaching or modeling alone, suggesting that either may be sufficient to produce behavior change.

Oden and Asher (1977) lended further support to the positive effects coaching interventions have on social skills. The authors evaluated the effects of a coaching intervention on social behavior and skills with 12 children in the third and fourth grade. All children were instructed on how to engage in four social skills including participation, cooperation, communication, and support. The results indicated that the coaching procedure was effective in increasing isolated children's peer acceptance and social skills. At the 1-year follow-up, the coached children were included more often by peers than before intervention.

These same aforementioned positive changes were supported in a review article by Zaragoza, Vaughn, and McIntosh (1991). The authors reviewed 27 studies

to examine the effects of social skills interventions on behavior problems in students. Results indicated that social skills interventions are successful with children who have behavior problems. Overall, social skills interventions yielded changes in self, teacher and parent perceptions. Further, all of the studies reviewed demonstrated that social skills training had a positive effect on social interaction and sociometric status. Last, several of the aforementioned studies utilized peers as agents of change. These peer-mediated interventions are very common in social skills training packages.

When working with socially rejected children, three main types of interventions, environmental arrangement, child specific, and peer mediated, are often utilized. In environmental arrangement interventions, teachers arrange features of the environment to foster interactions among peers, such as restricting the areas of the classroom in which play activities occur or providing activities that promote social interaction. In child specific interventions, teachers provide instruction or training directly to the child on social skills that they may use in social interactions with children, such as coaching children on social skills or teaching social initiation. In peer mediated interactions, socially competent peers, rather than teachers, serve as the direct intervention agents. For example, teachers teach the socially competent peers to initiate interaction with less competent peers, prompt or reinforce peers' initiation, or introduce contingencies for supporting peers' initiation (Gresham & Evans, 1987).

Typically child specific interventions are utilized when the focus is to change the social skills of rejected youth. When training social skills, teachers or interventionists coach and train the child the appropriate skills necessary to interact with others. Peer-mediated interventions are increasingly more accessible and feasible for professionals interested in social skills training in children (Odom & Strain, 1984).

In peer mediated interventions, socially competent peers, rather than teachers, serve as the direct intervention agents. For example, teachers teach the socially competent peers to initiate interaction with less competent peers or teach competent peers to prompt or reinforce peers' initiation (Gresham & Evans, 1987).

Odom and Strain (1984) outlined three types of peer-mediated approaches that have been utilized with children to increase social skills. The first procedure, proximity, involves placing a target child with a socially competent child, who is instructed to play with the target child, get the target child to play with them, or teach the target child to play. The second procedure, prompt and reinforce, involves having the competent peer prompt the target child to interact and then reinforce the interaction. In these procedures, a prompt is an instruction given by the competent peer to the target peer to engage them in a social activity (e.g., "Come play basketball"). Reinforcement is a verbal or physical event (e.g., high five or "great job") following the activity to maintain or increase the frequency of the desired social behavior. The third procedure, peer initiation intervention, involves having competent peers initiate social interaction with target subjects. For example, a competent peer asks a target peer to play or starts a conversation with a target peer (Odom & Strain, 1984).

Not only are these interventions feasible, peer-initiated interventions are an effective way to change the social behavior of children with a variety of behavior problems (Vincent et al., 1996). For example, Vincent et al. conducted a critical review of 56 studies found that peer-initiated intervention increased the amount of proper social responses of students with behavior problems.

Further, many studies have examined the effects of specific peer-mediated interventions on social skills and behavior. Strain, Kerr, and Ragland (1979)

evaluated the effects peer initiation and prompt/reinforce procedures on the positive behavior of four autistic children. The intervention consisted of using peer-mediators to socially interact and prompt/reinforce the behaviors of four autistic children. During the intervention, subjects were observed and their behaviors coded. The behaviors coded included two categories, motor/gestural and vocal/verbal. Each behavior also was coded in terms of whether the interaction was a reception or initiation. With implementation of the intervention, there was an increase in positive social behavior. The results indicated that both interventions had an immediate and dramatic effect on the target subject's positive behavior. Further, the magnitude of positive behavior change between the two interventions was comparable.

Another study examined the effects of a peer-initiated intervention on the frequency of social interactions and status with two socially isolated peers. Competent peers were trained in four social-interaction skills: initiating, responding to refusal, maintaining interactions, and responding to negative behavior. The ultimate goal of the initiations was to engage the target children in the activities of the larger peer group. Behavior observations were collected throughout the study, and three behaviors of the target subjects were coded including positive interactions, negative interactions, and social initiation. With implementation of the intervention, positive social interactions dramatically increased to levels of social-comparisons in the same settings. Further, these effects generalized to recess setting and maintained and continued at a 4-month follow-up. Last, teacher and subjects reported fewer social problems and less loneliness and sadness as a result of the intervention (Guevremont, MacMillan, Shawchuck, & Hansen, 1989).

Another study conducted by Sainato, Maheady, and Shook (1986) evaluated the effects of a peer-mediated intervention on the social behaviors of three withdrawn

kindergarten students with behavior problems. The intervention trained competent peers to initiate social interactions with the target subjects. The intervention demonstrated an increase in both social interactions and status of all three children. The authors concluded that the use of peers as behavior change agents is an effective way to increase the social behavior of students with a variety of problems and skill level.

Continued support for effectiveness of using peer-mediated interventions to increase social skills in children was provided by Storey, Smith, and Strain (1993). The authors examined the effectiveness of a peer-mediated intervention on the social behavior of 24 socially withdrawn preschoolers. Competent peers were trained to teach five interaction skills including getting others' attention, sharing, requesting, organizing play, and giving compliments. The competent peers were given two instructional procedures to use when teaching target children these skills. The instructional procedures included an introduction and description of the skills and a modeling of the skill. The authors observed subjects during a 5-min play session following the assistant's instructions. Five behavior categories were coded including initiation, social support, verbalizations, other, response. Overall, results demonstrated that the target children's social interactions increased upon implementation of the intervention. Further, the authors concluded that competent peers can be taught to implement peer-mediation interventions effectively. Further, these competent peers report that the interventions are relatively easy and effortless to implement.

Behavior Excess Interventions

Although the aforementioned interventions are quite successful in alleviating social skills deficits, children with behavioral excess, may not be assisted by these procedures. With the child who exhibits behavioral excesses, interventions should target the problematic behaviors (negative social interactions) that limit the occurrence of appropriate skills. Overall, much of the prior research focuses on training new social skills and arranging for contrived reforcers to be delivered by program personnel for improved social behaviors. Perhaps, some of this prior work is altering specific social behaviors (remediates deficits), but may not produce mush of a change in the social interactions of the child. Most of the skills training programs produce changes in the specific behaviors trained; however, overall social interactions rarely change.

Thus, interventions that alter the contingencies for detecting and reporting the positive behaviors of one's peers may be more beneficial in changing social behaviors and interactions between peers and target child and improving the amount of reinforcement that characterizes social interactions. This increase in peer reporting may increase the density of peer delivered reinforcers and alter the contingencies for tracking and reaction to the positive peer behavior. Positive peer reporting procedures may change the environmental context of social interactions so that there is more peer attention on positive behavior and peer delivered reinforcement for positive social behavior.

Positive Peer Reporting

Positive peer reporting involves having peers publicly report the prosocial behaviors exhibited by other youth. The original study in this line of research was conducted in Grieger, Kauffman, and Grieger (1976) who implemented an intervention with 90 children in kindergarten. Aggressive acts and cooperative play were recorded over 23 days during 15-min sessions. The intervention consisted of three phases, Intervention I, Reversal, and Intervention II. During the Intervention I phase, the teachers informed the children that they would be given a chance to name a classmate who had been friendly to him/her at play period and to describe the friendly behavior. The children who were named as friendly by a peer were allowed to select a happy face badge. During the Reversal phase, children were asked to report the names of children who were unfriendly to them during play period and to describe the unfriendly behavior. The Intervention II phase was exactly like the Intervention I phase, except there were no badges awarded. Peer praise was the only reinforcement given. The results showed that peer reporting produced an increase in cooperative classroom play, and a decrease in aggressive acts. Overall, providing opportunities for peers to reward prosocial behavior appeared to reduce aggression and increase cooperative play.

Since the original study was conducted, a line of research has continued using a positive peer reporting procedure to change the social status of unaccepted children. Ervin, Miller, and Friman (1996) used an ABAB design to examine the effects of positive peer statements on the social interaction and acceptance of a peer-rejected girl in the school setting. The targeted child's peers were awarded points (redeemable for privileges) for making positive statements about the target child at

the end of a class period. Data were then collected during free time on the number of positive and negative interactions between the target child and her/his peers. The results indicated positive effects on social interactions during treatment phases and a reversal to baseline levels during the withdrawal phase. Additionally, peer acceptance increased from pre- to postintervention.

In a second study, Bowers, McGinnis, Ervin, and Friman (in press) expanded the study by Ervin et al. (1996) by assessing external generality (replicating results in a new setting) and extending the data collection procedures by collecting multiple behavior problem ratings, such as a frequency count of problem behaviors emitted and peer ratings of social status. The authors used positive peer reporting procedures in treating a socially rejected adolescent male in residential placement. With the implementation of positive peer reporting procedures, improvements were noted in the observed social interactions, problem behaviors, and social status of the targeted 15-year-old boy.

In another study, Ervin, Johnston, and Friman (1998) implemented positive peer reporting procedures with a socially rejected 6-year-old girl. She engaged in negative social behaviors, physical and verbal aggression, and was avoided by her peers. The results indicated that negative interactions decreased and positive interactions increased during intervention. The changes in social status was minimal.

Jones, Young, and Friman (1998) used the same procedures with three disruptive students in a middle school of a residential program. The results suggested that prosocial behavior and social status increased from pre- to postintervention. Furthermore, the results indicated that there was a high level of acceptability of the treatment procedures by the classroom teacher.

Finally, Bowers (1997) applied the positive peer reporting procedures with four socially rejected youths in their homes. Along with observational data and sociometric rating scales, a social skills rating form also was administered to the caregivers of each child. The results indicated an increase in social status, except with one subject. Also, positive interactions increased and negative interactions decreased during intervention phases. The scores on the social skills rating form remained unchanged.

Overall, having peers positive report on rejected youth seemed to have a significant effect on interactions patterns between the rejected child and his/her peers. Positive peer reporting procedures produced an increase in positive interactions and a decrease in negative interactions between the unaccepted youth and his/her peers. Furthermore, subjects' social status, as perceived by their peers, seemed to increase.

Even though the positive peer reporting procedures have been shown to be effective, there were several limitations to the aforementioned studies. First, although the procedure demonstrated beneficial effects on social behaviors, the procedure did not train the target child more appropriate ways to interact. That is, socially rejected children may have changes their social behaviors largely as a result of social initiations from the peers rather than any social behavior change on the part of the socially unaccepted child. Second, although the previous studies targeted children who were considered socially unaccepted, the studies left questions as to the efficacy of the positive peer reporting procedures with socially rejected children. The procedure may be appropriate for unaccepted children who lack adequate social skills because it relies on the social skills of peers, but its effectiveness for those with behavior excesses may be limited. As stated previously, children with behavior excesses have adequate social skills, but they do not appropriately use these skills.

Therefore, it is reasonable to assume socially rejected children may not benefit from having peer make positive comments about them, and perhaps they would benefit from using the social skills in their repertoire in a more positive way. Third, the behavior observations that were obtained did not differentiate between who initiated the interaction. Such a differentiation would be beneficial in concluding which group, target or peer, actually changed their interaction styles. Finally, these studies did not use many standardized measures of behavior problems and social skills. Perhaps more standardized measures would be useful in assessing social skills and behavior problems in target children compared to other children. These measurements would allow further assessment of whether rejected children differ from other children in the classroom or whether any improvement in behaviors or social skills resulted from the implementation of the positive peer reporting procedure.

Purpose of the Present Study

The purpose of the present study was to address the above stated limitations of the original positive peer reporting procedure by including a procedural variation and enhancing the data collection procedure. The procedural variation included modification of the target youth's role. In previous studies, peers positively peer reported on the targeted child. In the present study, the target child reported positive behaviors of his/her peers.

The enhancement of the data collection procedures was twofold. First, in the previous studies, observational data only included negative, positive, and no opportunity interactions. The present study was more specific in terms of positive and negative interactions by coding who initiates the interaction. Such a differentiation was beneficial in concluding which group, target or peer, actually changed their

interaction styles. Second, the present study included two types of standardized measurements, CBCL and Assessment of Interpersonal Relationships-Peer Scale, with the former targeting behavior excesses and the latter targeting social skills deficits.

These extensions also decreased the effort needed by the adults involved. Overall, the new procedure took less effort and assistance by the teacher. In the original procedure, the children had to select a target (a classmate who be publicly given positive peer comments) for the day, all children had to report on the target, and the rejected child had to be chosen as the target more frequently then others. In the previous procedure, the teacher had to be familiar with the procedure, manage the procedure, and spend a significant amount of time delivering, monitoring, and conducting the intervention. In the current procedure, the teacher only met with the child once for about five minutes, listened to and recorded the behavior on the point card, and notified the complimented peer of the positive report. Overall, the intervention appeared to be more efficient for the adults and teachers.

Rationale for the Present Study

Given the variation on the present positive peer reporting procedure, it was important to understand why the present procedure may have been effective in changing social interactions. First, the intervention indirectly targeted children's negative behavior, tattling. If rejected children positively peer report, it was believed that the behavior contributing to rejection (tattling) could be reduced. That is, an alternative behavior (positive peer reporting) was reinforced. This differential reinforcement technique should have replaced the negative behavior with a more prosocial behavior. Consequently, if the rejected child was not reporting on negative

peer behavior (tattling), but instead delivering positive peer reports, then peers may not have actively rejected the target peer. If the intervention was reinforcing an alternative behavior (positive peer reporting), then a decrease in tattling may have resulted, and the target peer may have exhibited a relatively new behavioral repertoire, positive peer reporting. If this happened, then peers may have changed their view or behavior towards the rejected peer (Folkes, 1982).

Second, the change in interaction patterns between peers and the rejected youth may have occurred due to a phenomenon labeled social reciprocity. Social reciprocity refers to the tendency of individuals to reciprocate the type of social behavior that was displayed towards them. Put simply, individuals tend to behave toward others as others have acted toward them (Hartup & Coates, 1968). For example, if a person acts aggressively, the receiver may be more likely to reciprocate that aggression. If a person gives a compliment, the receiver may be more likely to reciprocate that compliment (Charlesworth & Hartup, 1967; Hartup & Coates, 1968).

A number of researchers have noted that both positive and negative interactions can be maintained through social reciprocity (e.g., Patterson, 1982). For example, the number of positive interactions emitted toward peers was positively related to the number of positive interactions received from peers (Charlesworth & Hartup, 1967; Hartup & Coates, 1968; Hartup, Glazer, & Charlesworth, 1967). Further, Strain and Shores (1977) found that subjects' interaction repertoires were related to the consistency of the reciprocal interaction observed. They found that if the interactions emitted by the target's were negative, then peers were more likely to emit a similar amount of negative interactions with the target.

Operating from the standpoint of social reciprocity, it seemed reasonable to assume that if there was an increase in the reinforcers (i.e., compliments and associated rewards) delivered by the rejected peer, then the beneficiaries of those compliments may respond in kind with socially reinforcing interactions. For example, if the child is now responding by positively peer reporting instead of tattling, and the complimented peer is made aware of who is delivering compliments (which are presumably in the category of positive social behavior), the reciprocated behavior would be predicted to be of a positive nature. In general, peers may have responded more positively towards the targeted children because they were receiving more reinforcement from those rejected children. If there was an increase in the response of peers toward the rejected children, then perhaps positive peer reporting procedures may have worked by increasing the likelihood that the positive aspects of the target child's behavior, which had previously been unnoticed, were now detected.

In summary, the current positive peer reporting procedure should have been effective for two main reasons. First, the child's negative behavior (tattling) was hopefully going to be substituted for a more positive behavior (positive peer reporting). Second, given the premise behind social reciprocity, it was thought that there would be an increase in the positive interactions by the target youth and his/her peers. In general, the rejected youth would acknowledge and reinforce peers, peers would reward and reciprocate the behavior, and this would increase positive interactions.

Appendix B

Caretaker Consent

Caretaker Consent

Western Michigan University, Department of Psychology
In affiliation with **Boys Town**
"Evaluating the Effects of Positive Peer Reporting on Social Acceptance"
R.Wayne Fuqua, Ph.D., Mary Short, M.A., & Patrick Friman, Ph.D.

You and a youth in your care are being asked to participate in a study "Evaluating the Effects of Positive Peer Reporting on Social Acceptance," that looks at how people learn to interact with each other. We are examining the effects of positive peer reporting on social status and social interactions. To participate in this study, you will be asked to complete a questionnaire which will take approximately 10 minutes to complete. The youth will also be asked to complete questionnaires taking approximately 15 minutes and positively peer report for a couple of weeks.

Benefits To Youth: Children may learn something about how children get along with others, may improve the child's peer interactions and social status, and may develop the child's prosocial repertoire of reporting the positive behaviors of others.

Potential Risks or Discomfort: We do not believe there are any risks resulting from your or the youth's participation in this study, above and beyond those that individuals typically encounter when completing paper and pencil measures. The child will not be receiving any label regarding his/her problems with peer relationships. He/she will be told that we are interested in how children interact with others, and that we are designing a procedure that helps children be more positive about peers. As in all research, there may be unforeseen risks to you or the youth. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or additional treatment will be made available to you except as otherwise stated in this consent form.

Right to Withdraw: You and the youth do not have to take part in this study. You may withdraw yourself or the youth at any time from this study without any negative effects, even after you or the youth have signed this consent form, by simply telling the researcher you want to stop. The youth's and your placement or relationship at Boys Town will not be affected in any way by your decision.

Right to Inquire: If you have any questions or concerns about this study, you may contact either Mary B. Short (402-498-3347), Dr. R. Wayne Fuqua (616-387-4474), or Dr. Patrick Friman at (402- 498-3353). You may also contact the Chair of the Human Subjects Institutional Review board at Western Michigan University (616-387-8293) or the Vice President for Research at Western Michigan University (616-387-8298) with any concerns that you have.

Research Standards: The data being collected is of a sensitive nature, and will be treated with extreme care. All records will be stored at the Boys Town Clinical Services and Research Department in a locked file cabinet away from the site of data collection. All records will be

available only to research staff directly involved in the project, maintained in confidence, and will not be released to anyone other than the appropriate Boys Town staff without written consent. All forms will be kept for five years at which time they will be destroyed.

Further, all data will be stored at Western Michigan University in the Behavior Medicine Lab (2034 Wood Hall) in a locked file cabinet. All data will be duplicated and sent via the mail system to Dr. R. Wayne Fuqua, the principal investigator who will place it in the file cabinet in Behavior Medicine Lab. Further, all identifying information will be removed from the duplicated data sent to Western Michigan University so to eliminate confidentiality issues caused by sending data through the mail. All data will be stored at Western Michigan University for a minimum of three years at which time they will be destroyed.

This consent document has been approved for use for one year by the Human Subjects Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Subjects should not sign this document if the corner does not show a stamped date and signature. Your signature indicates this form has been read and explained to you and you have been offered a copy of this consent form. Your signature also indicates that you agree to participate and let the youth participate in this study.

_____ _____

Print Name Here Print Youth's Name Here

_____ _____

Signature Date

Consent obtained by: _____ _____

Initials of Research Date

Appendix C

Participant's Consent

Participant's Consent

Western Michigan University, Department of Psychology
In affiliation with **Boys Town**
"Evaluating the Effects of Positive Peer Reporting on Social Acceptance"
R.Wayne Fuqua, Ph.D., Mary Short, M.A., & Patrick Friman, Ph.D.

I am being asked to participate in a study which looks at how kids learn to interact with each other. The purpose of the study is to find out how kids get to know each other and make friends. To participate in this study, I will be asked to fill out questionnaires taking approximately 15-minutes and positively peer report on other peers for a couple of weeks.

Benefits To Youth: I may learn something about my peer relations.

Potential Risks or Discomfort: The researchers do not believe there are any risks resulting from my participation in this study, above and beyond those that individuals normally get when completing paper and pencil measures. As in all research, there may be unforeseen risks to me. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or additional treatment will be made available to me except as otherwise stated in this consent form.

Right to Withdraw: I do not have to take part in this study. I may stop participating in this study at any time, even after I have signed this consent form. By simply telling the researcher I want to stop, I can stop participating at any time without any negative effects. Also, if I wish to stop participating at any time during this study, I will tell my teacher or family-teacher. If I tell my family-teacher or teacher, I will no longer need to participate in this study. My placement or relationship at Boys Town will not be affected in any way by my decision.

Right to Inquire: If I have any questions or concerns about this study, I may contact either Mary B. Short (402-498-3347), Dr. R. Wayne Fuqua (616-387-4474), or Dr. Patrick Friman at (402-498-3353). I may also contact the Chair of the Human Subjects Institutional Review board at Western Michigan University (616-387-8293) or the Vice President for Research at Western Michigan University (616-387-8298) with any concerns that I have.

Research Standards: All data will be stored in a manner that will protect my confidentiality. All records will be stored at the Boys Town Clinical Services and Research Department in a locked file cabinet away from the site of data collection. All records will be available only to research staff directly involved in the project, maintained in confidence, and will not be released to anyone other than the appropriate Boys Town staff without written consent. All forms will be kept for five years at which time they will be destroyed.

Further, all data will be stored at Western Michigan University in the Behavior Medicine Lab (2034 Wood Hall) in a locked file cabinet. All data will be copied and sent through the mail system to Dr. R. Wayne Fuqua, the principal investigator who will place it in the file cabinet in Behavior Medicine Lab. Further, all identifying information will be removed from the copied data sent to Western Michigan University so to eliminate confidentiality issues caused by sending data through the mail. All data will be stored at Western Michigan University for a minimum of three years at which time they will be destroyed.

This consent document has been approved for use for one year by the Human Subjects Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Subjects should not sign this document if the corner does not show a stamped date and signature. My signature indicates this form has been read and explained to me, I agree to participate in this study, and I have been offered a copy of this consent form. However, if I wish to stop participating at any time during this study, I will tell my teacher or family-teacher. If I tell my family-teacher or teacher, I will no longer need to participate in this study.

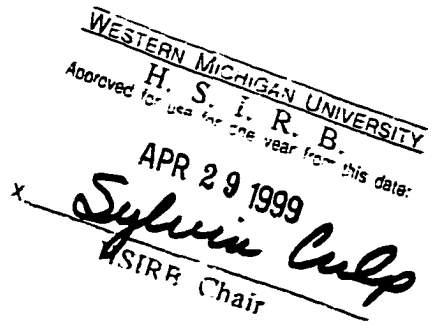
_____
Print Name Here

_____ _____
Signature Date

Assent obtained by _____ _____
Initials of Researcher Date

Appendix D

Participant's Assent



Participant's Assent

Western Michigan University, Department of Psychology
In affiliation with **Boys Town**
"Evaluating the Effects of Positive Peer Reporting on Social Acceptance"
R.Wayne Fuqua, Ph.D. , Mary Short, M.A., & Patrick Friman, Ph.D.

You are invited to participate in a research project entitled "Evaluating the Effects of Positive Peer Reporting on Social Acceptance." We are interested in finding out how children get along with each other and about their friendships. To participate in this study, you will be asked to fill out a questionnaire taking approximately 10-minutes.

Your replies will be completely anonymous, so do not put your name anywhere on the form. You may choose to not answer any question and simply leaving it blank. If you choose to not participate in this survey, you may return the blank survey. Returning the survey indicates your consent for use of the answers you supply.

If I have any questions or concerns about this study, I may contact either Mary B. Short (402-498-3347), Dr. R. Wayne Fuqua (616-387-4474), or Dr. Patrick Friman at (402- 498-3353). You may also contact the Chair of the Human Subjects Institutional Review board at Western Michigan University (616-387-8293) or the Vice President for Research at Western Michigan University (616-387-8298) with any concerns that you have.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board as indicated by the stamped date and signature of the board chair in the upper right corner. You should not participate in this project if the corner does not have a stamped date and signature.

Appendix E

Behavior Observation Sheet

Behavior Observation Sheet

_____ Date _____ Subject _____ Activity _____ Observer _____ Duration

	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15
Positive Interaction															
Negative Interaction															
Neutral Interaction															
No Opportunity															

	T16	T17	T18	T19	T20	T21	T22	T23	T24	T25	T26	T27	T28	T29	T30
Positive Interaction															
Negative Interaction															
Neutral Interaction															
No Opportunity															

	T31	T32	T33	T34	T35	T36	T37	T38	T39	T40	T41	T42	T43	T44	T45
Positive Interaction															
Negative Interaction															
Neutral Interaction															
No Opportunity															

	T46	T47	T48	T49	T50	T51	T52	T53	T54	T55	T56	T57	T58	T59	T60
Positive Interaction															
Negative Interaction															
Neutral Interaction															
No Opportunity															

Appendix F

Sociometric Rating Scales

Sociometric Rating Scales

Name: _____

Date _____

Family-Teachers: _____

Question 1: When working are playing or having free time, how much do you enjoy spending time with each of your classmates?

USE THIS SCALE:

1	2	3	4	5
Never		Sometimes		Very Much

Youth Names	Ratings
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

Question 2: How much do you like each of your classmates?

USE THIS SCALE:

1 Not at all 2 3 Somewhat 4 5 Very Much

Youth Names	Ratings
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

Question 3: For each of your classmates, rank how often they tattle (negatively peer-report)

USE THIS SCALE:

1 Never 2 3 Sometimes 4 5 All the Time

Youth Names	Ratings
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

Appendix G

Peer Nomination Forms

Peer Nomination Forms

Name _____

Date _____

Family-Teachers Names _____

How many friends do you have? _____

Name three children you like the **MOST.**

1._____

2._____

3._____

Name three children you like the **LEAST.**

1._____

2._____

3._____

Appendix H

Treatment Evaluation Inventory Short Form (TEI-SF)

Treatment Evaluation Inventory Short Form (TEI-SF)

Please complete the items listed below by placing a checkmark on the line next to each question that best indicates how you feel about the treatment. Please read the items very carefully because a checkmark accidentally placed on one space rather than another may not represent the meaning you intended.

1. I find this treatment to be acceptable way of dealing with the child's problem behavior.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. I would be willing to use this procedure if I had to change the child's problem behavior.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. I believe that it would be acceptable to use this treatment without children's consent.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. I like the procedures used in this treatment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I believe this treatment is likely to be effective.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. I believe the child will experience discomfort during the treatment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. I believe this treatment is likely to result in permanent improvement.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. I believe it would be acceptable to use this treatment with individuals who cannot choose treatments for themselves.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

9. Overall, I have a positive reaction to this treatment.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Appendix I

Treatment Integrity Checklists

Treatment Integrity Checklists

Baseline

____ No mention of intervention

____ Teacher is recording as "positive peer comment"

____ Teacher is not giving points to target or complimented peer

Intervention I Meeting

____ Teacher has special meeting with target peer

____ Teacher notifies the target peer that he/she can receive points for comment on positive behaviors of peers.

____ Teacher tells the student that the comment has to be genuine, positive and specific.

____ Teacher gives at least two examples of positive comments.

For example: "Jimmy help me do my math homework today."
"Amanda gave me two compliments at gym."
"Beth played basketball with me during recess."

____ Teacher states that the comments can be about any behavior they see during the day.

____ Teacher states that the comments must be given to the teacher and not the student.

____ Teacher states that the comments have to be given to the her/him directly.

____ Teacher states that the comments must be given during fourth period feedback time.

____ Teacher states that the comments have to be about peers in the homeroom.

Intervention Phase:

____ Teacher gives the child positive points per positive comment about peers.

____ Teacher records the skills as "positive peer comment".

____ Teacher verbally reinforces the target peer.

____ Teacher notifies the commented peer about the compliment.

____ Teacher notifies the commented peer about the sender of the compliment.

____ Teacher delivers positive points to the commented peer for the behavior.

Appendix J

Human Subjects Institutional Review Board
Letter of Approval

Human Subjects Institutional Review Board

Kalamazoo Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: 29 April 1999

To: Wayne Fuqua, Principal Investigator
Mary Short, Student Investigator for dissertation

From: Sylvia Culp, Chair Sylvia Culp

Re: HSIRB Project Number 99-01-01

This letter will serve as confirmation that your research project entitled "Evaluating the Effects of Positive Peer Reporting on Social Acceptance" has been **approved** under the **full** category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 29 April 2000

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